

# Railway Age

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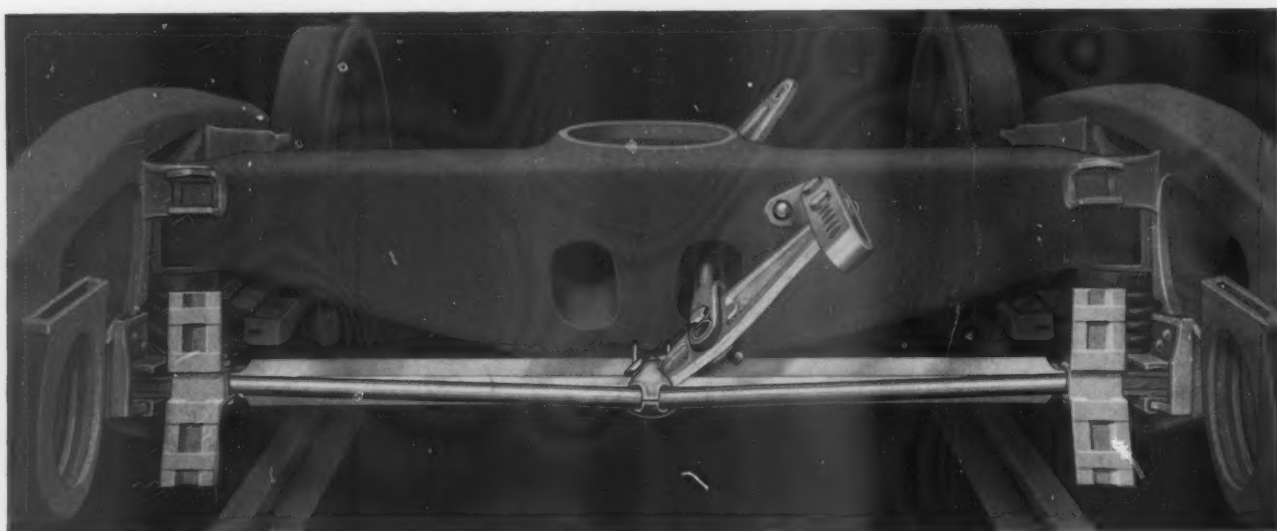
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## RAILWAY AGE

# The I. C. C.'s Discerning Report on the Ohio Canal

It was not Earl Browder or Norman Thomas who conceived the proposed 240-million-dollar Lake Erie-Ohio River canal; nor even such "liberals" as, say, Senators Norris and LaFollette—i.e., liberal in their ideas as to the propriety of the government's intervening in economic enterprise. The project, involving as it does a large expansion of socialism in the field of transportation, was conceived and has been enthusiastically advanced by business interests that would loudly resent any such intrusion of socialism into their industries. The most important of these business interests are large manufacturers belonging to the National Association of Manufacturers which not long since in its pamphlet "A Study of Depressions" demanded "recognition that private business *cannot compete on equal terms with government-subsidized industry*, and that the undertaking of such competition by government *discourages private industry, diminishes employment and thus tends to prevent sustained prosperity.*"

### Waterways Merely a Device for Preferential Rates

Hitherto the army engineers, to whom all such projects for waterway expansion are referred for investigation and report, have usually calculated prospective "savings" from an improved waterway by contrasting existing railway rates on the traffic in prospect with the estimated costs to shippers of barging the traffic if the taxpayers of the entire country provide a waterway. But waterways have not turned out according to predictions, because railway rates prior to the construction of a waterway have been proved to be no measure of actual costs of railway transportation. Such costs, indeed, when compared with those by inland waterway are often so low that the railroads can better afford, rather than lose the traffic, to make rates that will hold it, despite the fact that the user of the waterways pays only the costs of operating his barges.

The result of inland waterway construction, therefore, has often been, not the movement of any considerable part of the competitive traffic by water, but merely the reduction of the railroad rates on it for the few shippers who happen to be fortunate enough to be situated upon the waterway. Chairman Eastman said in his dissenting opinion in the recent Tennessee River Petroleum Rates case, "It would be more economical for the government not to construct and maintain the waterways, but instead to use an equivalent amount of

money as a subsidy to the railroads in exchange for lower rates." In many instances waterway construction—at the public expense, of course—has been promoted by shippers, not because they really wanted water transportation, but solely to beat down railway rates.

Observation of the fact that inland waterways are primarily only a device by which favored shippers secure a reduction of their railroad rates led the army engineers to raise some questions about the proposed Lake Erie-Ohio River canal. The cost to the shipper on the proposed canal, it is estimated, would be 72 cents less per ton than existing railway rates. But, it is estimated that, in order to save the shipper this 72 cents per ton, the taxpayers of the entire country would have to pay 43 cents per ton in waterway costs. (In considering this estimate of 43 cents, the fact should not be disregarded that the actual expenditures made on waterways usually have been at least twice as large as the army engineers' original estimates, and that therefore, to make the saving of 72 cents per ton for the shipper, the cost imposed on the taxpayers would much more likely be 86 cents than 43 cents.) So, the army engineers ask, why wouldn't it be better for the railroads (if they can) to reduce their rates 29 cents a ton before the canal is built, rather than be forced to compete with a 72-cents saving to waterway shippers after the waterway is built? The inference is that, if the railroads will make this reduction of 29 cents, then the waterway should not be built.

### "Mene, Mene, Tekel, Upharsin"

The President (for the first time in the history of such projects) asked the Interstate Commerce Commission to report to him, first, on the feasibility of reducing railroad rates in this area by 29 cents per ton, and, second, on the effect that the canal, if built, might have on railroads and motor carriers. The report made by the commission to the President three months ago was made public only last week; and it is reviewed on another page herein.

This report of the commission is a remarkable, and possibly even historic, document. It leaves several important questions unanswered, because the terms of reference which hedged around the President's submission to the commission limited the scope of its replies. Despite these limitations, the report gives evi-

dence of the most comprehensive viewpoint of the fundamental questions involved in rational solution of the nation's transportation problem which has ever been given formal expression by an official government body. The commission concluded that railway rate reductions such as those proposed by the army engineers could not in justice, and probably not even legally, be made prior to the actual construction of the canal; that the reduction of rates necessary to enable the railways to hold the traffic after its construction would be well above the 29 cents per ton previously considered; and that the construction of the canal would entail a loss of \$35,000,000 or more a year to the railroads and some additional losses to motor carriers. But the commission went beyond this bald statement to make the following observations (which we have numbered for convenience in reference):

(1) The services of each such carrier [i. e., those railroads serving the Lake Erie-Ohio River area] are required in the public interest . . . Each of these carriers has ample . . . capacity to meet satisfactorily any traffic demand . . . No one has urged that the proposed waterway is required to relieve the railroads of a load they cannot carry.

(2) The railroads must provide facilities for year-round service, whereas the waterway will be open throughout its entire length for not more than 8 months . . . The provision of competing water service will not materially reduce the supply of facilities the railroads must maintain to meet the public's needs . . . The unit costs of the rail service that remains would increase, causing an effort to increase the rates on the remaining traffic. . . .

(3) Sight may not be lost of the effect of loss of traffic on employment and on the scale of wages the railroads will be willing to pay.

(4) The public also is interested in the railroads, both as a great service agency and as an agency which contributes materially to the support of the general functions of government. Plans for the proposed waterway relieve its users of the burden of supporting it. Under these plans the saving to the shipper of 72 cents per ton, as estimated by the Board [i. e., of Army Engineers], is made possible through the placing on taxpayers generally a cost of 43 cents per ton. It would be a toll-free and tax-exempt facility. It would also take a considerable area of land and its appurtenances off the tax rolls. This condition, which goes back far in the relations of rail and water transportation, cannot, in the public interest, be overlooked in appraising the worthwhileness of the project.

(5) Use of the waterway would be confined to a relatively small number of larger shippers, many of whom would operate their own equipment over it, whereas the railroads, as public carriers, serve all who apply, large and small. Railroads weakened by public provision of facilities for their competitors cannot respond as fully as they should to the needs of the public for efficient and safe transportation.

#### **Why Not Ask the I. C. C.'s Views on Other Waterways, Mr. President?**

For all its guarded language, does not the above constitute a deep and sweeping indictment of the general policy (if such it can be called) of government (state as well as federal) toward transportation in this country? That is to say, if the statement in paragraph (1) above as to the adequacy of existing transportation plant is true, as it undeniably is, then does not that statement call into question not only the Lake Erie-

Ohio River canal, but practically every other inland waterway heretofore constructed or now proposed?

Since, as paragraph (2) indicates, the construction of an inland waterway enforces the maintenance of a great stand-by railroad plant, the question is raised by implication as to why other users of transportation or railroad-owners should have to assume such a burden, when they are not going to receive any of the "benefits" of the proposed waterway.

The federal government—both the New Deal and prior administrations—has shown, as far as the record is concerned at least, a great concern for the welfare of workingmen in general, and railroad labor in particular. As the commission, by implication, points out in (3) above, there is not much practical benefit in having "paper" wages and "paper" working conditions on the railroads which are favorable to employees, if the same alleged "friends" of labor who help establish these conditions "on paper" are going to prevent the movement of traffic at such favorable wages and under such favorable working conditions.

The quotations given in (4) and (5), if their logic is carried only one step forward, become as damning an indictment of existing so-called government "policy" toward transportation as any responsible person has yet uttered. Carrying the argument of these paragraphs the one step forward we arrive at the following:

#### **Isn't the Following a Fair Statement of the I. C. C. Position?**

**Railroad service is necessary to the public welfare, because such service, on the average, is the most economical service available to all citizens without discrimination. The railroads are also an indispensable source of tax revenue for the support of the general functions of government. It is, therefore, contrary to the public interest to use general tax funds in a manner calculated to destroy a source from which such tax funds are derived. It is equally contrary to the public interest to build, out of tax money, transportation facilities available only to the favored few, when the inevitable result must be an increase in cost and a deterioration in the service of carriers who serve all alike.**

**We conclude, therefore, that neither the Lake Erie-Ohio River canal, nor any other public transportation facilities should be built except those which will, by fees paid by the users, compensate fully for the cost of the facilities provided, and yield, moreover, a return equivalent to the tax revenues which would be levied upon the proposed facilities if they were in private ownership—this caveat being particularly applicable where the proposed new transportation is to be of direct benefit to only a small area or segment of the population.**

If the above statement is not a fair interpretation, in terms of broad general policy, of the commission's views as disclosed in its report upon this specific pro-



ject, then we shall be glad to be corrected. Moreover, if anyone can offer any objection to such a policy from the standpoint of the protection of the public interest, we should like to hear it.

The commission (or an influential part of it at least) is plainly growing in intellectual stature and in its sense of public responsibility. We wish we could say as much for all the individual commissioners. The dissenting opinions of four of them in the Naval Stores case (No. 27571), reviewed elsewhere in this issue, betray the same poverty of outlook and understanding which we have frequently in the past felt obliged to criticize. In this Naval Stores case there were five dissenters, four of whom gave their reasons. In general, the effect of their notions, had they prevailed, would have been to have forced the railroads to maintain rates far higher than their costs require, *merely to enable high-cost and inefficient truck competitors to stay in business*. Such a decision could only have the effect of saddling on the nation indefinitely the costs of supporting an enormous duplication of transportation plant, thus reducing the national income and the standard of living of the American people. Competition, when it is natural, is usually a constructive force, making for increased wealth and well-being—but when it continues solely as a result of a *political umbrella held over high-cost producers*, as the dissenters attempt to do in the Naval Stores case, it is little more than a share-the-poverty scheme, such as that put forward by the lamented Huey Long.

Be that as it may, the commission has done a splendid job (and, we hope, one of great historical importance) in coming as near as it has to calling a spade a spade in its report on this colossal Ohio canal grab. We'll not cavil, therefore, that some of its component minds are disclosed to be as narrow as ever they were, but rather rejoice that, in dealing with some great questions, it has been possible to transcend the puny and provincial.

#### Big Business With No Faith in Private Enterprise

This Ohio canal case most forcibly emphasizes two extremely important points—

(1) The determined and reckless effort continuing to be made by some Big Business interests to promote, for their own selfish purposes, government policies affecting the railroads exactly like those affecting their own industries that they constantly and loudly denounce as socialistic, un-American and tending to undermine and destroy private enterprise.

(2) The need for legislation requiring that certificates of public necessity and convenience be secured from the Interstate Commerce Commission authorizing the construction of additional waterways and commercial highways, just as existing law requires the securing from the commission of certificates of public necessity and convenience authorizing the construction of additional railway lines.

There is no form of hypocrisy manifested in this country equaling that of Big Business interests that pretend to oppose government subsidized competition with private business, and at the same time constantly promote government-subsidized competition with the railroads at the expense of all the taxpayers and to the detriment of all other business. And there is no more grotesque inconsistency in present government policy than its requirement that the railroads shall get certificates of public necessity and convenience before building new lines *at their own expense*, and its failure to require certificates of public necessity and convenience for the construction of inland waterways and commercial highways *at the taxpayers' expense* to be used in competition with the railways.

## Watering the Iron Horse Through the Drought

The railways of the country have faced more severe and widespread drought conditions in recent months than have prevailed for many years. As pointed out in an article in the *Railway Age* of January 20, entitled "Water Service Men Fight Drought on Many Fronts," stream flow in many parts of the country diminished, and in many cases failed entirely, reservoirs were rapidly depleted, and even sub-surface supplies were affected in some areas. More striking still is the fact that, for the first time in history, the flow in the Mississippi river was so small that salt water from the Gulf of Mexico backed up into it for a distance of 200 miles, or far above New Orleans, La., presenting a serious problem to every road in this territory that relied upon river water for locomotive boiler use.

Confronted with these conditions, it would not have been surprising if train service had been interfered with seriously in many territories; yet, as the result of forehandedness on the part of water service and operating men in developing more dependable sources of supply and in adjusting operating methods where necessary, this condition did not prevail. In fact, at a number of points, the railways alone had water and were turned to by municipalities and industries to tide them over their shortages.

In view of this situation, there may well be general satisfaction with the way the railways met the 1939 drought. However, the drought brought to light many cases of inadequate or undependable water supplies on the railways, and, not infrequently, the remedial measures adopted were costly or affected operation adversely. It would be a mistake, therefore, to assume that the problems of water service men have been solved.

In fact, confronted with many changes in operating conditions which are relocating the points of greatest water demand on many roads, combined with ever-increasing demands for improved locomotive per-



formance and reduced locomotive maintenance costs which, in turn, demand water of the highest quality, the problems of many water service men have increased. Where these problems are complicated by periodic water shortages they become doubly important and difficult. In view of these facts, it is evident that until all of the possibilities for dependable, quality water supplies have been explored, water service men have not fulfilled their full responsibilities. That funds have not been available for many necessary improve-

ments during the long period of depressed earnings that has prevailed should be no excuse for these men to accept as final water conditions which they know to be unsatisfactory and costly. The increased earnings of the railways during the fall of 1939 and the better prospects for earnings in 1940 should provide them with an incentive to advocate anew programs of investigations and improvements which, on the basis of recent experience, they know are essential to the efficiency, if not the dependability of train operation.

## "Out-of-Pocket" vs. "Cost" Rates

The question of "out-of-pocket" vs. "full" costs as a criterion for establishing rates of competing methods of transportation is going to be debated for a long time before a generally-acceptable conclusion is reached. Meantime, whatever views one holds, the discussion will be productive to the degree that the issue is seen with complete clarity by all the disputants.

We have in this space suggested greater reliance upon "full" costs, as opposed to "out-of-pocket" costs, as the measure of *competitive* rates. We put forward this suggestion — not as adherents to any rate-making dogma, but solely because, insofar as we have studied the situation, it looks to us that the "full" cost basis will give the railroads more traffic and revenue than the "out-of-pocket" basis will (and, at the same time, will protect the public interest in economical transportation better than the "out-of-pocket" basis would protect that interest). This suggestion is entirely tentative—and we are open to conviction by those who have evidence to support a contrary view.

But let us make crystal clear precisely what we are suggesting. *First*, we are not finding fault with "out-of-pocket" rates *per se*—but only when they are used as a competitive weapon by an agency of transportation in capturing traffic to which it has no economic claim. *Second*, by "full" costs we mean only those costs which can be fairly assigned to a given movement. Such "full" costs, to our way of thinking, should not include profit or any element of return on the investment.

Take lettuce movement across the continent, as an extreme example. Here is traffic which loads lightly in expensive equipment, with a high ratio of empty back-haul. It will be found that "full" costs (omitting a return on the investment) do not exceed the actual rates.

In fact, we are not able to locate any appreciable volume of competitive traffic from which rates based on "full" costs (omitting return on investment) would compel the railroads to withdraw. On the contrary, such a rate basis will give the railroads a competitive advantage in thousands of instances, while hindering them in practically none.

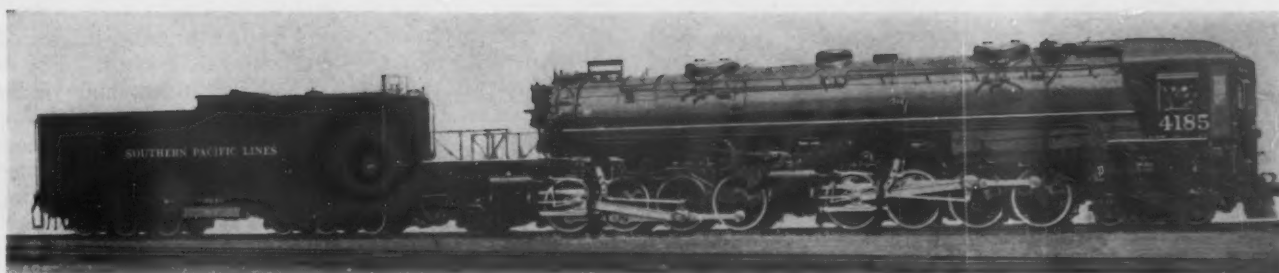
Costs, of course, should be computed for competing agencies of transportation on an *exactly comparable* basis. That is to say, if maintenance-of-way expense is left out of the computation of "full" costs of waterway transportation, because users of waterways do not defray such expenses,

then maintenance-of-way expenses should be left out of railway costs also. **The purpose of regulating the rates of competing agencies of transportation, should be to encourage the use of the more economical and discourage that of the less.** That purpose cannot be achieved—and competitive regulation must fail in its primary function—if costs for rate-making purposes are not compiled in a strictly comparable manner. Likewise, in computing comparative costs, the relative balance of traffic in a given territory should be taken into account—assessing each agency with its full proportion of prevailing empty movement. Any agency trying to take traffic away from another on the basis of its costs, should be assessed with its proportionate share of the "cats and dogs"—else its cost figures will not be comparable.

Once truly *comparative* costs of competing agencies of transportation are determined, the question can then be decided whether there are considerations of public interest which would justify the regulatory authorities in permitting the high-cost agency to depress its rates below "full" costs (with "out-of-pocket" costs, of course, as a "floor") in order to get a share of this business away from the low-cost agency. In some cases, possibly, justification could be found for such permission.

Our suggestion, thus, does not exclude "out-of-pocket" rates: (1) in any case where competition between rival agencies of transport is not the issue; and (2) it would not exclude rates below "full" costs even in competitive situations, where sound reasons could be advanced for permitting them. *But the burden of proof would be placed on the agency wishing to bid for the business of an undeniably more economical competitor.* Under prevailing conditions the unlimited application of the "out-of-pocket" theory is bound to impoverish the whole transportation industry.

But, as we said before, we are not pushing any rate-making dogma here. If anybody can demonstrate that the fair application of the "full cost" principle, strictly limited and circumscribed as set forth above, would fail to give the railroads a rate advantage over their rivals on the great bulk of competitive traffic, we shall cheerfully accord them the space in which to make their demonstration. We are not trying to win an argument—but to put back on the rails all traffic to which they have a valid claim in the public interest.



One of the Last Order of 28 Oil-Burning Locomotives for Cab-Ahead Operation Built by Baldwin for the Southern Pacific

## Southern Pacific 4-8-8-2 Cab-Ahead Locomotives

With the acquisition of the 28 delivered last summer, the railroad now has 105 Baldwin-built oil-burning locomotives of this type

**D**URING the summer of 1939 the Southern Pacific received 28 single-expansion articulated oil-burning locomotives from the Baldwin Locomotive Works. With the completion of this order the railroad had in service a total of 105 of these Baldwin-built locomotives, all of which operate with the cab in front.

The first of these was built in 1928 and other deliveries were made in 1929, 1930, and 1937. During this time the design has been subject to a number of changes in details of construction as well as proportions. The latter changes are shown in the table. These have consisted in an increase in boiler pressure and progressively increasing weight. Separate frames and cylinders were first replaced with bed castings in the 26 locomotives built in 1937. One of these locomotives was briefly described in the June 16, 1937, *Daily Edition of the Rail-*

*way Age*, page 1004D18. The boilers of the new locomotives include the Type E superheater and they are equipped with Worthington feedwater heaters.

The outstanding change in the last lot of these locomotives, road class AC-8, is in the system of journal lubrication. This is the same as that employed on the Class AC-9 coal-burning locomotives described in the December 16 issue of the *Railway Age*, page 918, and was developed by the motive-power department of the Southern Pacific. It comprises the use of spring-pad

A Comparison of the Southern Pacific 4-8-8-2 Oil-Burning Locomotives

Class	AC-4	AC-5	AC-6	AC-7	AC-8
Road numbers	4100-09	4110-25	4126-50	4151-76	4177-4204
Date built	Sept., '28	July, '29	June, '30	1937	Aug., '39
Tractive force, lb.	112,760*	112,760*	123,400	123,400	124,300
Weight on drivers, lb.	475,200	482,500	517,000	514,800	531,700
Total engine weight, lb.	614,600	622,600	639,500	639,800	657,900
Driving-wheel diameter, in.	63½	63½	63½	63½	63½
Cylinders (4), diameter and stroke, in.	24×32	24×32	24×32	24×32	24×32
Steam pressure, lb.	235	235	250	250	250
Total evap. htg. surface, sq. ft.	6,487	6,487	6,470	6,468	6,468
Superheater htg. surface, sq. ft.	2,988	2,988	2,735	2,601	2,616
Grate area, sq. ft.	139	139	139	139	139

\* Limited cut-off.



Front End of a Class AC-8 Southern Pacific Locomotive

lubricators which are installed in the cellars of the driving boxes, as well as in the engine-truck, trailing truck and tender-truck boxes.

Supplementing the spring pad lubricators in the driving boxes oil from a Nathan type DV-7 mechanical lubricator operated by a connection to the link is fed steadily to each driving box where it is distributed through tubes into a groove back of the center of the crown bearing.

The cellars are easily withdrawn endwise without removing the cellar bolts and are held in place by latches fitted with coil springs. These permit free endwise movement of the cellars when the wheel hubs come in contact with felt pads in the ends of the cellars by which the driver hubs are lubricated. Dirt, water, and other foreign matter is kept out of the cellars by means of

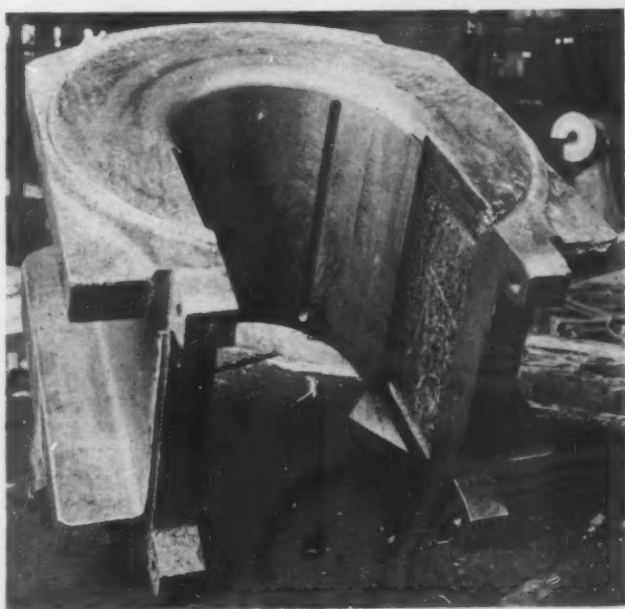


Oil-Lubricated Driving Box and Cellar Installed on the Axle

serrated brass spring-action dust guards which fit closely around the journal, one from above and one from below, at the inside end of the box and by a spring-action oil-proof seal at the outside end. The glass bull's-eye sight on the cellar shows the oil level.

To give a satisfactory bearing surface against the steel journals for the oil lubrication a white metal lining is poured on the brass, in the face of which is a serrated recess to hold the lining. The hub faces are babbitted with Satco metal.

In the engine-truck, trailer-truck and tender-truck boxes are Magnus tube-type bearings.



A Crown-Bearing Driving Box for Force-Feed and Spring-Pad Oil Lubrication

The driving-box shoes and wedges are also lubricated automatically from the mechanical lubricator. Force-feed lubrication is applied to the cylinders and guides and to the valve-rod crosshead guides.

The main and side rods are all lubricated by grease which is stored within the crank pins. This eliminates the need for grease cups on the rod ends. Floating bronze bushings are applied on the intermediate and main crank pins. These bushings run in Hunt-Spiller gun-iron fixed bushings pressed in the rods.

Owing to the difficulty experienced with earlier locomotives of this type with steam pipes cast integral with the cylinders, the castings have been rearranged so that the steam-pipe connections are all outside of the cylinder and saddle portions of the bed castings. The injector water line on earlier orders of these locomotives was placed between the driving wheels below the driving



The Driving-Box Cellar

axles. On these locomotives it has been placed along the side of the locomotive in order to make the driving boxes and brake work more accessible.

All steam pipes where possible have been placed outside of the cab. This includes the steam-heat reducing valve which is in front of the cab and operated by a handle in the cab through beveled gears attached to the valve. Equipment placed on these locomotives which was not included on the earlier orders are the locomotive Valve Pilot, the Wilson blow-off separator and discharge muffler, and an air whistle. The brake equipment is the Westinghouse 8ET with flange connections practically throughout.

Improvement has been made in the vision through the front cab windows. Safety glass is used in the cab windows throughout,  $\frac{1}{16}$  in. thick in the front and in the

(Continued on page 248)



The Railways Use  
Vast Quantities of  
Treated Ties and  
Lumber



## Better Timber for Railroad Uses

Wood preservers consider ways of increasing service life at largely attended meeting

**A**PPROXIMATELY 375 railway and other men interested in the treatment of timber and in its use attended the thirty-sixth annual convention of the American Wood-Preservers' Association at St. Louis, Mo., on January 23-25. As heretofore, primary consideration was given to the refinement of processes for the preservation of wood and to the presentation and analysis of the service rendered by treated timber in the form of crossties, piling, poles, structural timber and other major applications.

The outstanding feature of the convention was the Users Day session on Wednesday forenoon, at which addresses were presented on What We Can Expect from Treated Ties, by G. W. Harris, chief engineer, Atchison, Topeka & Santa Fe System; The Pre-Framing of Timber for Use in Bridges, by G. H. Trout, bridge engineer, Union Pacific System; The Stacking, Seasoning and Treatment of Gum Lumber for Railroads, by G. R. Smiley, chief engineer, Louisville & Nashville; and on the Diversified Uses of Treated Wood by the Railroads, by Elmer T. Howson, western editor, *Railway Age*. Mr. Harris' paper will be published in an early issue. The other papers are abstracted herewith. C. S. Burt, superintendent of ties and treatment, Illinois Central, with headquarters at Grenada, Miss., and president of the association, presided over the convention.

At the closing session on Thursday forenoon, Ralph E. Meyers, vice-president and sales manager, International Creosoting & Construction Company, was elected president; W. R. Goodwin, engineer wood preservation, Minneapolis, St. Paul & Sault Ste. Marie, was elected first vice-president; W. P. Conyers, vice-president and

treasurer, Taylor-Colquitt Company, was elected second vice-president; S. D. Hicks, vice-president, Southern Wood Preserving Company, and R. H. Colley, engineer, Bell Telephone Laboratories, Inc., were elected members of the Executive committee; and H. L. Dawson was re-elected treasurer. Louisville, Ky., was selected as the headquarters for the next convention.

Shortly after calling the convention to order, President Burt reviewed the varied activities of the association during the year, among which were the publication of a book on Railroad Tie Decay, comprising papers on The Decay of Ties in Storage, by C. J. Humphrey, and Defects in Crossties Caused by Fungi, by Dr. Audrey Richards. Mr. Burt also reported the acceptance by the association of the assignment of a patent on a composite wood and concrete floor construction for bridges, preparatory to the granting of licenses to responsible builders without royalty.

Mr. Burt also emphasized the fact that "the welfare of most of the members of the association is closely linked with that of the railroads, who are the principal users of creosoted materials. Both are in need of more business. It is gratifying to read Mr. Pelley's recent statement that freight traffic is 10 per cent larger than a year ago, while net income, after fixed charges, in 1939 was \$95,000,000, as compared with a deficit of \$123,000,000 the previous year. While this cheering report assures increased purchases by the railroads, one wonders how much greater those purchases might be if some reduction could be made in the tax bill of the railroads.

"It is disconcerting also," he added, "to see some of

the money that is so badly needed by the railroads for treated crossties, timbers and other renewals diverted to the financing of highways and waterways for the free use of only a few carriers who in turn charge for their own product the same price as if hauled on the rails. Figures show that a modern, double-track railroad could be constructed between St. Louis and Kansas City to give service to all the people every day in the year for less money than has already been spent in trying to keep the Missouri river open for a few shippers a small part of the year. Taxes and public expenditures have a very direct effect on the railroads and thereby on the wood preserving industry, and as such, warrant careful thought by our members."

The report of Secretary-Treasurer H. L. Dawson showed that 58 new members were enrolled and 4 re-instated during the year, resulting in a net gain of 26 and a total membership at the end of the year of 692.

### Service Records

As in past years, a large part of the time of the convention was devoted to the consideration of service records of treated timber. The Committee on Tie Service Records, A. J. Loom (N. P.), chairman, presented statistics of crosstie renewals on 28 railways for the year 1938 and for preceding years dating back to 1911. It also presented reports of special test tracks on a number of railways and stated that it is now undertaking a study of the re-use of treated ties salvaged from abandoned lines.

The Committee on Bridge and Structural Timber, T. H. Strate (C. M. St. P. & P.), chairman, also presented service records of treated timber in a number of bridges on the Burlington and the C. & O. Similarly, the Committee on Marine Piling Service Records, A. S. Daniels (S. P.), chairman, reported the results of an inspection of piling exposed to attacks of marine borers in Southern Pacific structures in San Francisco bay, while a Committee on Post Service Records presented data regarding the character of treatment and the service rendered by posts in railway and other uses in the southern states.

Special attention was given to the treatment and service of poles. The Committee on Pole Service Records submitted information regarding installations made by the Burlington, the Santa Fe, the Canadian Pacific and other users of poles, concluding with a suggested standard procedure for the inspection of treated poles in service. A Committee on the Pressure Treatment of Poles presented the results of a study of the treatment and service of jack pine, red pine, lodgepole pine and western red cedar poles, and outlined specifications governing such treatment. A paper was also presented by C. H. Amadon, Bell Telephone Laboratories, Inc., describing the service life possible from lodgepole pine, large quantities of which are available in the Rocky Mountain area.

### Other Reports

A Committee on the Uses of Treated Wood for Car Lumber, H. R. Condon, Wood Preserving Corporation, chairman, reported the use by the St. Louis-San Francisco of substantial quantities of pressure-treated running boards, decks of open-type cars, wood members of stock cars and siding for coal cars, the decks and sides of coal cars being creosoted and other members being salt treated. The committee reported also that the Central of Georgia uses a considerable amount of creosoted wood for coal-car decks and for all-wood parts of stock cars, including running boards; that the Louisville & Nashville has

adopted a standard list of car members to be treated for use in stock, mill gondola and flat cars; and that the Santa Fe has standardized on creosoted decking and nailing stringers for flat cars, lumber for these purposes being cut to size before treatment.

The Committee on Diversified Uses of Treated Wood reported, among other applications, the use since 1930 of creosoted timber blast boards at the Broad Street viaduct over Union Station tracks in Nashville, Tenn., with excellent results. This committee also reported the use of treated black gum crossing planks on a number of railways for periods ranging from 9 to 13 years. E. R. Boller, chemist, Grasselli Chemical Department, E. I. duPont de Nemours & Co., presented a paper on the zinc chloride-petroleum treatment of crossties, in which he outlined tests made on a number of railways to determine the practicability of a two-movement process.

The association created a committee during the year to investigate the feasibility of painting creosoted wood, which committee presented a preliminary report emphasizing the difficulties of securing uniform and dependable results and pointing to precautions to be taken to increase reliability. Other reports presented at the convention dealt with the pressure-treatment of Southern pine ties and lumber, the non-pressure treatment of poles, the revision of specifications for the preservative treatment of Douglas fir ties by pressure processes and the pressure treatment of oak ties and lumber.

## Can One Preframe Treated Timber for Bridges?

By G. H. Trout\*

For ages, timbers have been framed for use in bridges and other structures, but it was not until the employment of treated timber in structures became general that the term "preframing" assumed significance, and demanded the study of methods for its practical application. Not only did this demand seem logical from the standpoint of the higher cost of treated material, but because it soon became obvious that the framing of timbers after treatment often defeated the very purpose which the treatment of the timber sought to accomplish, namely, "longer service life" over untreated timber.

Prior to our adoption of the practice of preframing treated timber, a number of treated wood box culverts had been installed on our lines without being preframed. For these boxes the treated material was cut to size and erected at the site. Many of the culverts so constructed began to fail in 12 to 15 years, due to decay in the exposed untreated ends of the timber, despite the fact that the cut surfaces had received an application of hot creosote after being framed.

At the time that the preframing of treated timber for use in the complete construction of bridges was first introduced and widely discussed among our officers and foremen in the maintenance of way and engineering departments, it met with considerable opposition. It was claimed to be impractical, if not impossible, to preframe completely and erect long pile trestle bridges. It was further contended that piling in bents could not be driven sufficiently accurately as to location in the structure, and thus in time make it necessary to await the outcome of the pile driving before timbers for the deck could be framed to fit the pile bents.

To test the validity of this contention, and to overcome opposition to the procedure of preframing, we assigned men trained in erecting materials which were

\* Bridge Engineer, Union Pacific System.



manufactured and marked in shops and shipped to the site knocked down. The result was highly satisfactory in that we found that such work could be done without difficulty. Our bridge and building forces fell into line and are now enthusiastic over this method of construction.

Conditions sometimes arise where a new structure is replacing a pile trestle that has, over a period of many years, been replaced in kind several times and the old pile stubs are so thick that it is difficult to redrive on fixed lengths of spans without some variation. When such conditions exist, we drive the piles first and then take the necessary field measurements for preframing.

On the Union Pacific there are two timber treating plants at which preframing and treating of timbers is performed; to each of these a certain territory is allotted. These plants are located in The Dalles, Ore. and Laramie, Wyo.

Following our annual bridge inspection, detail timber lists are prepared, on which are shown the location and number of each structure, the number and size of timbers required, and also whether the timber is to be untreated, treated, or preframed and treated. From these lists the purchase lists for timber are made up, and the timber is shipped to the particular treating plant in whose territory the structure is located. From so-called bridge repair and renewal schedules for the ensuing year a program is worked out, scheduling the work to be done from month to month. Detail drawings are made, in accordance with previous surveys, for the preframing and marking of each timber for use in the structure.

For the purpose of facilitating the obtaining of field data for the preparation of preframing drawings, special forms have been prepared for use at the various types of structures. For new pile or frame trestles, field measurements are not required, the preframing being done from our Common Standard plans.

On the preframing diagram is a detailed sketch of every type of piece to be preframed, showing the sizes and locations of all holes to be bored and of all daps to be made. On this plan is also shown a marking diagram of all pieces to be preframed and treated.

Our framing yard at The Dalles, which is typical also of the one at Laramie, is laid out to handle about 400,000 ft. b. m. of framed lumber per month. When we add to this the material that is incised only, the total amount of lumber going through the framing yard may reach 600,000 ft. b. m. per month.

We have found it advantageous in some cases, when preframing certain parts of wooden structures, such as stringer chords of a trestle on a curve, to assemble the parts completely before preframing. The individual pieces in a chord are cut to length in accordance with the detail drawing, and are then assembled on the alignment that the chord actually takes in the finished trestle before the packing bolt holes are bored. This insures complete success in erection. We have erected many pile trestles, one consisting of 109 spans, with complete preframed and treated deck without making any cuts or boring a single hole in the field.

About sixty days prior to the time that a preframed treated timber job is scheduled for construction, the treating plant receives the detail preframe drawings. The various timbers required for the job are then deposited on the receiving end of the skidway, where they are cut to proper length. Each timber is stamped with the bridge number at one end, and with a number designating its location in the structure at the other end, as shown on the detail preframe drawing. Bevel ties for use on steel bridges on curved tracks are taken to the band-saw and ripped to conform to the prescribed super-

elevation. Timber stringers are bored for chord bolts and anchor bolts, and are also dapped at the bearing points. All ties for steel bridges are dapped to fit the steel stringers or girders on which they are to rest.

The boring of ties for track spikes for running rails as well as inside guard rails, if any, for use on tangent track on steel bridges and for trestle bridges, is generally done in accordance with a standard template. On bevel ties used on steel bridges on curves, each spike hole is precisely located in accordance with detail drawings, and is bored at right angles with the bevel surface of the tie. Track spike holes are bored to  $\frac{3}{8}$  in. diameter the full depth of the tie. Holes in guard rail timbers for boat spikes are bored to  $\frac{1}{2}$  in. diameter.

### Costs

Accurate data collected on the actual performance of the working of preframing timbers for use in bridges has established figures, which vary only slightly, and which show that the cost of obtaining the field information and preparing the preframing plans is more than offset by the saving gained from the additional life of the timber.

## Handling Gum Lumber

By G. R. Smiley\*

The Louisville & Nashville began the preservative treatment of timber with creosote in 1869. Since then, at one time or another, it has treated almost every species of timber it uses. Most species were treated successfully; a few were not.

We have no record that shows when gum was first used on the L. & N. We know that it has been purchased, treated, and used as crossties since 1914. From that year until 1926, tupelo, sweet and black gum were purchased, seasoned and treated together without segregation from other mixed hardwoods. No tests or service records were kept; consequently, we know nothing regarding the service life of those ties. Some of them seemed to be taking punishment in good shape, others did not, but by 1926 we knew that the only tie of this species that we could depend upon for economical service was the interlocked grain black gum, and then only in case the heartwood, if any, was limited. As a result of this experience, we have strictly limited our purchases to interlocked grain sapbound black gum since 1926.

We first used black gum for switch ties in 1932. In 1928 we began to purchase black gum lumber for such purposes as overhead highway bridge floors and crossing plank. We now use it for almost every purpose where hard service is expected and creosoted material is not objectionable, such as platform floors, wharf decking, bridge ties, decking for flat and mill gondola cars, flooring on push cars, tool boxes, etc.

Black gum lumber is purchased in thicknesses varying from 1 in. to 8 in. in widths from 6 in. to 12 in., and in lengths from 8 ft. to 26 ft. In order that good treatment and service life may be secured, the amount of heartwood must be limited.

Our experience is that any timber seasons more satisfactorily if cut during the fall and winter months. We find this to be particularly true of black gum. For these reasons, our purchases are made only between September 1 and March 1.

After the trees are cut, it is highly important that the logs be sawed promptly and the lumber piled in open stacks, started well above the ground, while awaiting

\* Chief Engineer, Louisville & Nashville.



shipment to the treating plant, to which it should be moved quickly for seasoning. Before seasoning, all black gum lumber less than six inches in thickness is surfaced on at least one side and one edge, true to thickness and to uniform widths. It is then piled carefully in stacks sloping approximately 1 ft. to 10 ft. from front to rear, and such that no piece touches another while seasoning. All stacks of lumber of crossing plank thickness and under are well weighted down to prevent warping.

The time required for air seasoning generally ranges somewhere between five and eight months, depending almost wholly on the weather conditions that obtain. At frequent intervals during this period the lumber is carefully examined as to its internal condition, and treatment is given promptly when the condition of the stock is satisfactory.

Treatment is by the Rueping process, with straight creosote, using about 80 lb. initial air pressure, followed by 3 to 4½ hr. of oil pressure at 190 lb., with the oil temperature from 190 to 195 deg. F. We require a net retention of approximately 7 lb. of creosote per cubic foot of timber, regardless of its size or class. When it is desired that the surface of the lumber be clean and free of excess oil, the standard treatment is followed by a steam bath and a secondary vacuum. We formerly used an 80 per cent creosote-20 per cent coal tar solution in treating black gum, but found from carefully made experiments and tests that better distribution of oil was obtained with the straight distillate than with the solution.

Our experience is that black gum crossties properly treated give much better service on our southern lines than well-treated oak, and equally as good service in our northern territory. They can be used under heavy traffic where pine and cypress fail from mechanical wear. Black gum is fully as satisfactory in resisting mechanical wear as oak. It neither checks nor splits excessively, which is not true of the oaks.

During our purchasing season, we buy every gum tie we can get to meet our specifications, and regret that the number is small. Since 1926 we have treated 488,506 black gum crossties, 4,317,374 ft. b. m. of black gum switch ties, and 4,951,202 ft. b. m. of black gum lumber.

No freshly cut and dressed timber presents a better appearance than black gum, with its fine smooth grain and light color. It is extremely fickle and unreliable if not properly handled from the tree to the finished product, but there are few timbers that will give a quicker or more satisfactory response when it receives the careful attention it deserves. I class it among our very best for many railroad purposes.

## Still More Diversified Uses

By Elmer T. Howson\*

The first concern in the United States to use treated timber was a railway. The first creosoting plant constructed in the United States was built by a railway. During the years when timber was so cheap that there was no general demand for the preservative treatment of wood, it was the railways that, by their sympathetic interest, gave wood preservation the support that was necessary for its continued existence. In the development of preservatives and of the technic of their use, the railways have done pioneer work. And today, when the wood preserving industry has reached the age of maturity, it is still the railways that provide the major outlet for its products.

\* Western Editor, *Railway Age*.

Railway uses of timber are large and varied. In the aggregate they normally take some 20 per cent of the total output of the forests. In most of these applications, the exposure is such that decay is an important, if not a controlling, factor in the service life.

The largest single demand for timber by the railways is for crossties. At the beginning of the century this demand approximated 100 to 125 million ties annually. As recently as 1925-29 it averaged almost 80 million ties. Today the normal demand approximates 60 million ties. This marked reduction has been brought about primarily by the widespread acceptance of timber preservation. Yet, even with such evidences, the use of treated crossties is still considerably short of universal. For instance, in 1938, the last year for which statistics are available, more than 7,900,000, or 18.5 per cent, of all ties installed by Class I railways, were untreated, while 12 roads installed no treated ties, on 5 others the percentage of treated ties was less than 20, 8 roads installed only 20 to 40 per cent of treated ties, and 21 other roads installed 40 per cent or more of their ties untreated. It is evident that there is still room for expansion in this field in which preservative treatment has made its greatest progress.

The next largest present use of treated timber by the railways is in bridge construction and maintenance. Here, as with ties, the preservative treatment of the timber has demonstrated marked economy for piling and decks of trestles and likewise for the ballasted decks of steel spans. By reason of its limited life untreated, timber has given way to concrete in bridge construction on many railways, in the belief that only concrete is permanent. Yet not a few roads have demonstrated the entire practicability of so treating and erecting trestles of timber as to secure a life in excess of 30 years.

Here the problem is to prevent the mutilation of the timber after treatment. The attitude is widely held that timber must be "framed" or cut to fit in the field, and since such mutilation removes much of the value of the treatment, only a small part of the total timber used in such structures is treated today. Mr. Trout's description of the manner in which the Union Pacific has eliminated the necessity for this mutilation constitutes a most effective answer to this attitude. As this possibility comes to be appreciated more universally, the use of treated timber will be increased correspondingly.

Turning in another direction, it is not commonly realized that the railways maintain more than 100,000 miles of pole lines for communication and signal power lines. These lines include 3,500,000 poles of the larger sizes. Only a portion of these are treated as yet.

Likewise, the railways maintain 500,000 miles of right-of-way and other fencing, including more than 160,000,000 fence posts. The renewal requirements approximate 20,000,000 posts a year. In spite of the fact that the life of these posts can be extended from perhaps 5 or 6 years to as much as 20 to 25 years by treatment, the proportion of treated posts being installed is small.

Let us look at highway crossings for a moment. Years ago, plank, in untreated form, was universally used, but with the advent of automobile traffic on the highways, it has largely been supplanted by other materials. Yet there are those in this room who are prepared to demonstrate that certain woods, properly treated, provide a crossing of at least equal durability, with excellent riding qualities and at markedly lower cost. And, in spite of the present era of grade crossing elimination, more than 230,000 crossings still remain.

Turning to water service, the railways maintain more than 26,000 tanks of 50,000 and 100,000-gal. capacity

(Continued on page 248)

# I. C. C. Makes Public Report on Lake Erie-Ohio River Canal

Tells President project would cause revenue loss of \$35,000,000 a year, which railroads can ill afford to take

WASHINGTON, D. C.

**"R**AILROADS weakened by public provision of facilities for their competitors can not respond as fully as they should to the needs of the public for efficient and safe transportation," the Interstate Commerce Commission warned in its report to President Roosevelt on "certain aspects" of the proposed \$240,000,000 Lake Erie-Ohio River canal—the so-called Beaver-Mahoning project. Railroad gross revenue losses would be about \$35,000,000 a year, the commission said, calling this an amount which the carriers "can ill afford, now or in the future, to lose;" also, motor carriers "in a limited area would to some extent be adversely affected."

As noted in the *Railway Age* of March 4, 1939, page 376, the President asked the I. C. C. for a report on the project after he had had the report of the Board of Engineers for Rivers and Harbors reviewed by the National Resources Committee. The latter suggested that the project required a broader analysis from the general public convenience and necessity standpoint than the army engineers had given it; and the President directed the I. C. C.'s attention particularly to a finding of the army engineers that "if the railroads would permanently reduce rates by an average of 29 cents per ton prior to the construction of the waterway the through project could not be justified." He asked the commission to determine whether or not rate reductions "of the magnitude and type noted" would be economically justified; and the effect which construction of the project would have on rail and motor carriers.

## First Public-Need Study of Waterway Project

The commission revealed in its annual report which went to Congress on January 8 that it had submitted the requested report to the President on the 27th of last October. Thereafter President Roosevelt was asked at one of his press conferences if he would make the document public, and he replied that he didn't know—he would have to look into it. Subsequently the White House announced that the commission's report had gone to the National Resources Planning Board (formerly National Resources Committee) for review and would not be made public at that time. Meanwhile it is understood that the I. C. C., having received many requests for copies of the report, obtained White House sanction for its action in making it public. The whole process of having the army engineers' findings reviewed by the National Resources Planning Board and the I. C. C. marks **the only occasion in recent history when a waterway project has been weighed from the broad standpoint of public convenience and necessity**, including an appraisal of the adequacy of existing railroad and highway facilities.

The I. C. C. report is a document of 67 mimeographed sheets with appendices setting up tabulations of various pertinent data. As noted in the commission's annual report the investigating job was done by a committee

composed of Secretary W. P. Bartel and four other members of the commission's staff under the direction of a commissioner. The conclusions are summarized as follows:

1. Permanent rate reductions of the type and magnitude specified in the inquiry directed to us would not be economically justified prior to the construction of the canal for the reason that on the information now available, these reductions could not be confined to the traffic of those who would be expected immediately and directly to benefit by construction of the proposed waterway.
2. A large volume of traffic, at least 56,000,000 tons a year and probably considerably more, would be affected in the event construction of the waterway is carried through and the gross revenue loss of the railroads would be about \$35,000,000 a year and possibly more.
3. The railroads can ill afford, now or in the future, to lose revenue in such an amount as the traffic in question produces or will produce.
4. The railroads have ample line and terminal capacity to carry any traffic that is likely to develop for many years to come.
5. The public has a vital interest in the protection of the revenues of an agency of transportation whose services are available the year-round and to large and small shippers on equal terms.

## Big Shippers Would Be Principal Users

In the latter connection the commission had previously predicted that **"use of the waterway would be confined to a relatively small number of larger shippers, many of whom would operate their own equipment over it,** whereas the railroads, as public carriers, serve all who apply, large or small;" and in another place it had pointed out that "the private carrier predominates on the Upper Ohio and connecting rivers and presumably would account for the bulk of the use of the proposed route."

Also: "In speaking of railroads, sight may not be lost of the effect of loss of traffic on employment and on the scale of wages the railroads will be able to pay. Railroad investors, management and labor have an interest, obviously, in maintaining as great a volume of railroad business as possible. The public also is interested in the railroads, both as a great service agency and as an agency which contributes materially to the support of the general functions of government. Plans for the proposed waterway relieve its users of the burden of supporting it. Under these plans the saving to the shipper of 72 cents per ton, as estimated by the Board (of Engineers for Rivers and Harbors), is made possible through the placing on taxpayers generally a cost of 43 cents per ton. It would be a toll-free and tax-exempt facility. This condition, which goes back far in the relations of rail and water transportation, can not, in the public interest, be overlooked in appraising the worthwhileness of the project."

The report opens with a description of the proposed waterway project which would be about 102 miles in length, constructed over the so-called Pittsburgh-Ash-tabula route from Beaver, Pa., on the Ohio 25 miles



below Pittsburgh, up the Beaver river 21 miles to a point in the vicinity of New Castle, thence up the Mahoning river about 35 miles to Warren, Ohio, serving Struthers and Youngstown, as intermediate points, and thence for about 46 miles by canal and a large storage reservoir to Lake Erie at a point about 10 miles west of Ashtabula. The minimum channel depth would be 12 ft. and there would be 14 locks and dams. Each lock would be capable of accommodating tows of six 1,000-ton barges. The Beaver and Mahoning rivers would have to be widened and dredged, and many railroad and highway bridges would require alteration.

#### "Cheap" Transport Facilities at \$2,353,000 a Mile

As noted above, the estimated cost of construction is \$240,000,000, while the annual operating, maintenance and carrying charges would total \$12,157,000. The estimated first cost, the commission notes, "is equivalent to about \$2,353,000 per mile," and the estimated annual cost would be "about \$119,000 per mile." It is proposed to require local interests to bear \$14,156,000, or about 6 per cent, of the first cost. "Benefits," other than those to navigation, "are either small, as in the case of those resulting from flood control, or not estimated, as in the case of those resulting from improved water supplies."

The I. C. C. construed the President's request "as requiring us to advise you, first, whether the rates in the area and on the traffic assumed to be affected could be permanently reduced an average of 29 cents per ton, without construction of the waterway, and, second, what affect such construction would have on rail and motor carriers." The commission did not consider it appropriate "to comment upon the physical features of the proposed waterway or the estimates of what its first cost and the annual cost thereafter will be." It did, however, construe the question of the possible effects of the waterway "broadly enough to include those which would be felt by the public as users of rail and motor service."

Explaining how the proposed rail-rate reduction of 29 cents per ton is computed, the commission explained how the engineers estimated that 27,746,000 tons would move over the waterway annually; the cost to users of transporting this volume on the waterway was estimated at 72 cents per ton less than the cost to the shipper of rail service or of a combination of rail-water service. But the annual operating and maintenance costs and carrying charges of the canal, to be paid by the general taxpayers, would be the aforementioned \$12,157,000. The latter divided by the estimated tonnage shows that the general taxpayers contribution would be 43 cents a ton, so that "the net saving is the difference between 43 and 72 cents, or 29 cents." Here the commission inserted a footnote to point out that **"a comparison of railroad rates with the cost of providing transportation service by water does not involve like cost elements. The railroads have to provide and maintain their own rights of way and to pay taxes for the support of government functions, but no such burdens would be placed on users of the waterway under the plan."**

#### Principal Traffic Would be Ore and Coal

Proceeding to answer the question as to whether the rail-rate reductions could be brought about prior to the construction of the canal, the commission pointed out that iron ore and coal, much of it ex-lake ore and lake-cargo coal, constitute about 90 per cent of the prospective tonnage. With respect to the former it said that such traffic has normally been large in volume and partici-

pating rail carriers would resist any change in rates that would lessen the share they individually obtain. Furthermore, practically all steel plants in the areas involved are competitive, and the ex-lake rates on ore to the several destinations "are and for years have been related to each other." Even if such were not the case, the commission goes on, "it is clear that a reduction of 29 cents, or any figure approaching this amount, in the rates from and to the points embraced in the Board's estimate without some readjustment of other ore rates would create important advantages for such destination points and important disadvantages for other steel-mill points."

In further support of its conclusion that the reductions in the ore rates could not be confined to prospective beneficiaries of the waterway, the commission cited the Interstate Commerce Act's prohibitions against undue prejudice and undue preference as between shippers and localities. If the waterway were built, it explained, the railroads might justify rate reductions to meet its competition; but "in the absence of actual water competition, it is certain that reductions confined to points embraced in the Board's estimate would bring forth protests from other shippers and localities alleging undue prejudice and preference." Thus the commission's finding that the rate change proposed by the Board "would ultimately affect not only the 10,000,000 tons of iron ore included in its estimates but also, though possibly in an amount less than 29 cents, an additional 13,300,000 tons." In other words all ex-lake rates on iron ore would become involved, and the average annual 1934-1937 movement under such rates has been 23,300,000 tons, or about 60 per cent of the 1929 peak. The annual revenue loss to the railroads on ore traffic would become \$5,560,000 "if it be assumed that a reduction in the amount of 20 cents per ton on the additional 13,300,000 tons would result."

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Since ore, coal and limestone constitute more than 95 per cent of the total tonnage embraced in the Board's estimate, the commission thought it would serve no useful purpose to discuss the minor commodities beyond saying that reductions of rail rates on them would bring about similar cuts on the same commodities from and to other points not embraced in the territory wherein the



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Citing in that connection the pertinent provisions of the Interstate Commerce Act, the commission explains that in implementing the general standards there set up, it has never considered it practicable to make rail rates "wholly with relation to the cost of transporting particular commodities between particular points." The reasons, the report goes on, are in part the difficulty of ascertaining such costs but "more importantly the fact that the rate structures . . . have reflected the past and continuing efforts of the railroads to cope with competition and to preserve and promote traffic in which they are individually interested."

#### **Rate-Making Can't Become Mere Process of Applying Cost Formulae**

Meanwhile the commission has endeavored "to give greater emphasis to the factor of relative costs;" and it is convinced that the principal means of coping with present competitive conditions in the transport field is "to give more weight to the cost-of-service factor." However, "it must be realized that the process can not be approached with the hope of making abrupt changes, or that rate making can become a mere process of applying cost formulae. It may prove that the economic life of the nation requires continued play of the principle that, for the good of the whole, the burden of maintaining carrier services must be distributed in part in disregard of relative costs and in proportion to ability to pay."

From a "general analysis" of the cost of rail transportation of the traffic that directly and indirectly might be affected the commission was able to say that "as the traffic in question is both short-haul and heavy-loading, it is probable that, from a cost standpoint alone, some and perhaps most of these rates could be reduced without bringing them down to cost." It adds, however, that most of the rates involved, including practically all those on iron ore and coal "have been reviewed by us in various proceedings and have been prescribed or approved as reasonable, and as fairly related to other rates." This was not intended to imply that "no changes whatever could be made in these specific rates," the report observes in passing on to note the contention of Youngstown proponents of the canal that the government should give them the waterway because it has already benefited Pittsburgh with large expenditures on the Monongahela and Ohio. It adds that if Youngstown interests or the railroads serving them feel that additional rate adjustments on coal would improve their competitive situation, the commission is prepared "to consider carefully any evidence they may wish to offer in an appropriate proceeding."

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said is that the long-term outlook for coal as a source of traffic is distinctly uncertain."

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"While we have not undertaken a detailed or field check of the tonnage estimates used by the board and have confined ourselves to certain general tests of their reasonableness," said the commission's conclusion with respect to the traffic estimates, "it appears appropriate to conclude that, if the waterway is constructed and if rail rates are not reduced, less iron ore and possibly more coal and miscellaneous commodities will move over it than are indicated by the estimates used by the Board. On the whole, therefore, it appears that at least 28,000,000 tons of rail traffic would be diverted, or held only by substantial reductions of rates . . . Carriers indirectly affected would endeavor to meet the situation by reducing their own rates. There is no way of definitely foretelling how far the process would go, but, to obtain the true picture of the total tonnage that would be affected, the 28,000,000 tons included in the Board's statement of prospective traffic should be doubled and probably considerably more than doubled. Further, the reduction of rates necessary to hold this traffic would have to be well above the average figure of 29 cents per ton previously considered. The maximum reduction would be in the neighborhood of 72 cents. If 50 cents be used as an average figure, the revenue loss sustained by the railroads might well exceed \$35,000,000 per year."

Although it made no independent investigation of the matter, the commission concluded that the Board's estimate of about three mills per ton-mile for the line-haul cost of transportation on the canal "has been reasonably derived in the light of the many contingencies involved, and may be attained in practice." However, the commission later states that these costs relate more or less to the present time, having previously calculated that if the water-haul costs should prove to be four mills per ton-mile "the Board's estimated net savings would be reduced from \$8,000,000 to \$5,800,000."

The railroads directly or indirectly affected the commission says, would be most of those in Central Freight Association territory, and it lists those handling ex-lake ore or lake-cargo coal or both as follows: Bessemer & Lake Erie; Pennsylvania; Pittsburgh & Lake Erie; Baltimore & Ohio; Wheeling & Lake Erie; Nickel Plate; Erie; Chesapeake & Ohio; Lehigh Valley; Delaware, Lackawanna & Western. Included, it says, "are carriers which will be recognized as basically strong and others whose present condition is very bad and whose long-term outlook is unfavorable."

#### **Railroads Involved Earning Low Returns**

Taking these carriers as a whole, "the return earned during recent years has been low . . . The services of each such carrier are required in the public interest . . . Each has ample line and terminal capacity to meet satisfactorily any traffic demand that is likely to be placed upon it in the near future . . . The competition of highway transportation has augmented the surplus of facilities. No one has urged that the proposed waterway is required to relieve the railroads of a load they can not carry."

"It may also be noted," the commission continues, "that the railroads must provide facilities for year-round service, whereas the waterway will be open throughout its entire length for not more than eight months, and that the provision of competing water service consequently

below Pittsburgh, up the Beaver river 21 miles to a point in the vicinity of New Castle, thence up the Mahoning river about 35 miles to Warren, Ohio, serving Struthers and Youngstown, as intermediate points, and thence for about 46 miles by canal and a large storage reservoir to Lake Erie at a point about 10 miles west of Ashtabula. The minimum channel depth would be 12 ft. and there would be 14 locks and dams. Each lock would be capable of accommodating tows of six 1,000-ton barges. The Beaver and Mahoning rivers would have to be widened and dredged, and many railroad and highway bridges would require alteration.

#### "Cheap" Transport Facilities at \$2,353,000 a Mile

As noted above, the estimated cost of construction is \$240,000,000, while the annual operating, maintenance and carrying charges would total \$12,157,000. The estimated first cost, the commission notes, "is equivalent to about \$2,353,000 per mile," and the estimated annual cost would be "about \$119,000 per mile." It is proposed to require local interests to bear \$14,156,000, or about 6 per cent, of the first cost. "Benefits," other than those to navigation, "are either small, as in the case of those resulting from flood control, or not estimated, as in the case of those resulting from improved water supplies."

The I. C. C. construed the President's request "as requiring us to advise you, first, whether the rates in the area and on the traffic assumed to be affected could be permanently reduced an average of 29 cents per ton, without construction of the waterway, and, second, what affect such construction would have on rail and motor carriers." The commission did not consider it appropriate "to comment upon the physical features of the proposed waterway or the estimates of what its first cost and the annual cost thereafter will be." It did, however, construe the question of the possible effects of the waterway "broadly enough to include those which would be felt by the public as users of rail and motor service."

Explaining how the proposed rail-rate reduction of 29 cents per ton is computed, the commission explained how the engineers estimated that 27,746,000 tons would move over the waterway annually; the cost to users of transporting this volume on the waterway was estimated at 72 cents per ton less than the cost to the shipper of rail service or of a combination of rail-water service. But the annual operating and maintenance costs and carrying charges of the canal, to be paid by the general taxpayers, would be the aforementioned \$12,157,000. The latter divided by the estimated tonnage shows that the general taxpayers contribution would be 43 cents a ton, so that "the net saving is the difference between 43 and 72 cents, or 29 cents." Here the commission inserted a footnote to point out that **"a comparison of railroad rates with the cost of providing transportation service by water does not involve like cost elements. The railroads have to provide and maintain their own rights of way and to pay taxes for the support of government functions, but no such burdens would be placed on users of the waterway under the plan."**

#### Principal Traffic Would be Ore and Coal

Proceeding to answer the question as to whether the rail-rate reductions could be brought about prior to the construction of the canal, the commission pointed out that iron ore and coal, much of it ex-lake ore and lake-cargo coal, constitute about 90 per cent of the prospective tonnage. With respect to the former it said that such traffic has normally been large in volume and partici-

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"It may also be noted," the commission continues, "that the railroads must provide facilities for year-round service, whereas the waterway will be open throughout its entire length for not more than eight months, and that the provision of competing water service consequently



will not materially reduce the supply of facilities the railroads must maintain to meet the public's needs except as storage on a larger scale may occur. As the result of this splitting up of traffic, the unit costs of the rail service that remains would increase, causing an effort to increase the rates on the remaining traffic or creating a burden which the railroads must cope with as best they can."

Before setting forth the other comments and conclusions given above, the commission devoted two pages to a discussion of the proposed waterway's effect on motor carriers. This issue, it says, relates essentially to coal, and the motor carriers would not find the waterway "an appreciably competitive factor," owing to the wholly different type of service it would render. Further along the commission notes that motor carriers, in contrast to railroads, "have no right-of-way facilities of their own; also, the trucks used in this operation generally can be turned to other uses, as in fact they are intermittently at the present time."

## Better Timber for Railroad Uses

(Continued from page 244)

for the storage of water for locomotive use. These tanks were originally of wooden construction but of late years have largely been superseded by those of steel construction. Yet one prominent railway has erected and has in service today more than 200 such tanks of treated wood construction, none of which have required renewal or painting or other extensive maintenance, although they have now been in use for periods up to 24 years.

When one turns to buildings, he finds that the railways are called on to construct and to maintain more than 370,000 structures, most of which are of frame construction, while the remainder employ wood in varying quantities. Furthermore, the railways spend more than \$90,000,000 a year to maintain these buildings. Yet one finds almost a virgin field for preservative treatment here, even though decay and termites take large toll. With so-called "clean" treatments as well as the older preservatives available, it is evident that a potential market of large magnitude exists here.

Let me direct your attention to only one more of many potential applications—the freight car. The railways operate 2,000,000 freight cars. These cars are subjected to severe service and exposure. Replacements are expensive and frequent. Yet the amount of treated wood used in car construction today is negligible. This is due to the lack of knowledge on the part of railway mechanical department officers of the varieties of preservatives and of treatments available—and to the impression that, to be effective, the entire car must be treated, whereas the first approach, at least, should be towards those specific parts of the cars where the advantages are the greatest and the objections the least, such as the floors of stock cars, the decks of flat cars, the running boards of closed cars, etc.

So much for specific suggestions for the further extension of wood preservation in railway service. Many other applications, equally varied and almost as numerous as the railway uses of timber might be mentioned. They all point to the importance of making a detailed study of all those uses which the railways make of timber to determine those which offer opportunities for preservative treatment.

## Southern Pacific 4-8-8-2 Cab-Ahead Locomotives

(Continued from page 240)

windshield wings, and  $\frac{3}{8}$  in. thick elsewhere. Movable sash are of extruded aluminum.

The pilot is covered with a steel plate to act as a snow plow.

The general dimensions and weights of the Class AC-8 locomotives are shown in the table.

### General Dimensions and Weights of the Southern Pacific 4-8-8-2 Type Oil-Burning Locomotives

Railroad	Southern Pacific
Builder	Baldwin Locomotive Works
Type of locomotive	4-8-8-2
Road class	AC-8
Road numbers	4177-4204
Date built	August, 1939
Service	Passenger and Freight
Rated tractive force, engine, lb.	124,300
Weights in working order, lb.:	
On drivers	531,700
On front truck	76,400
On back truck	49,800
Total engine	657,900
Tender	393,300
Wheel bases, ft.-in.:	
Driving	44-7
Engine, total	67-3
Engine and tender, total	112-2
Driving wheels, diameter outside tires, in.	63½
Cylinders (4), number, diameter and stroke, in.	24 x 32
Valve gear, type	Walschaert
Valves, piston type, size, in.	11
Boiler:	
Steam pressure, lb.	250
Diameter, first ring, in.	94 1/8
Tubes, number and diameter, in.	91-2¼
Flues, number and diameter, in.	240-3½
Length over tube sheets, ft.-in.	22-0
Fuel	Oil
Grate area, sq. ft.	139
Heating surfaces, sq. ft.:	
Firebox and comb. chamber	478
Tubes and flues	5,990
Evaporative, total	6,468
Superheater	2,616
Comb. evap. and superheater	9,084
Tender:	
Water capacity, gal.	22,000
Fuel capacity, gal.	6,100
Trucks	6-wheel

\* \* \*



Courtesy Official Information Bureau of Switzerland

A Front View of One of the Peculiarly-Shaped "Red Arrow"  
Expresses of the Swiss Federal System

Large Terminals Present Difficult  
Switching Problems



## How to Increase Terminal Locomotive Efficiency\*

Steam and Diesel-electric power compared  
in yard operating studies

**F**ORTY of the larger Class I railways gave this committee pertinent information with respect to terminals in which three or more switch engines were employed during 24 hours. Data were thus obtained with respect to locomotive utilization in 224 terminals, 192 under steam operation and 32 under Diesel operation, in which 2,122 steam locomotives and 125 Diesel units covered 94,919 steam and 8,719 Diesel assignments. On the average the steam locomotive worked 3.3 per cent overtime and the Diesel 1 per cent. The steam locomotives were available 83.5 per cent of the time as against 92.7 per cent for the Diesels. Utilization of these 2,237 locomotives amounted to 61.5 per cent for steam and 84.5 per cent for Diesel of the available hours, and 51.4 per cent for steam and 78.3 per cent for Diesel of potential hours. These averages are slightly higher than those indicated by the I. C. C. reports for 1938, and may be accounted for partially by the fact that our questionnaire covered only terminals employing a minimum of three eight-hour engines per day.

A hurried review of these figures might give us the first impression that the steam locomotive was out of the running in the race between various types of motive power for the most economical operating results. However, those of us who have been allotted one or more Diesel units have experienced the pressure which has been

brought upon us to secure maximum production from these units. Special performance records have been designed and mechanical forces have been augmented and speeded up for the purpose of securing maximum availability of the Diesel units. Is it not fair to ask whether the application of the same methods of supervision and maintenance to steam operation would not have produced more favorable operating statistics than those indicated by the I. C. C. reports or the results of our questionnaire? Almost all of us know definitely the operating results of our Diesel units, but some of us would be more than a little embarrassed if we were asked for similar information with respect to the operation of our steam units. Yet, 97 per cent of all motive power units assigned to yard service are steam-driven, a fact to challenge renewed interest in the vast potentialities of this class of power for efficient and economical operation.

### Pressing Problems

Some of the most pressing current problems in this connection are:

1. The physical limitations of the locomotive itself for continuous service. It must be fueled, supplied, repaired and inspected.
2. Varying types of locomotives, large, small, and medium, all within one terminal, and each suited only

\* From a report presented before the American Association of Railroad Superintendents by a committee of which M. J. Reynolds, supervisor station service, Baltimore & Ohio, Chicago, was chairman.



for a particular service, industrial, transfer, or classification.

3. The limitations of the plant and facilities which must serve the locomotive, and which the locomotive must serve; fueling and water stations; light running repair facilities; running tracks for prompt and unrestricted movement of locomotives to and from points where employed.

4. Traffic peaks and valleys requiring an uneven distribution of units, some working continuously, some only one or two tricks a day.

5. Traffic schedules requiring a frequency of service which is not conducive to uniform distribution of power.

6. Inadequacy of accessorial services which will not allow full utilization of the locomotive. These include (a) Communication facilities; (b) supervision and clerical assistance; (c) car inspection forces.

7. Lack of current accurate information as to individual performance of each locomotive.

### Improving the Situation

All of us cannot discard our present equipment although we feel that modern units, possibly of a different design and type, would result in greater utilization. Our principal job is to produce the maximum efficiency of each unit assigned to our supervision, regardless of age, style or inherent limitations. The first step toward improvement should be conferences with the master mechanic and the enginehouse foremen. An alert mechanical officer who receives frequent and accurate advance reports of transportation department requirements from a co-operative superintendent will assure an adequate supply of power with a minimum number of units in service.

On some properties, reports on maintenance requirements of locomotives and on service requirements for power are exchanged by mechanical officers and superintendents every four hours. One carrier advised that it utilized lull periods when the locomotive would otherwise be idle or nearly so, to turn an engine in for light repairs and servicing, so that it was in condition for the heavy requirements of the succeeding trick. Another carrier has established a streamlined light repair shop adjacent to its coal tipple where engines are serviced quickly without the necessity for turning them into the roundhouse. A number of carriers report substantial increases in utilization as the result of increasing the fuel and water capacities of tenders. Other carriers advise that although they have increased the capacity of some of these units, utilization has not been particularly improved because of the limitation of other mechanical and other operating factors. A thorough study of this subject from all points of view should determine the advisability of incurring the expense of re-building tenders.

Another desirable conference is that between superintendents and maintenance of way officers, approaching the problem as though the terminal were new to both and conducting a survey of every track and facility which in any way affect the operation of locomotives. A check for one or two days will show all delays chargeable to plant and facilities, and may be grouped with reference to servicing facilities such as the coal dock, the ash pit, the sandhouse, and water cranes; and operating facilities such as ready tracks, enginehouse leads and running tracks.

Delays incident to the taking of coal and water are worthy of intensive study and are sure to reveal opportunities for the relocation of present facilities, or a re-

arrangement of the operating program whereby a greater number of productive hours may be realized from a given number of employed hours. Few new terminals have been built in recent years, so that present facilities are largely a heritage of earlier years when transportation requirements were vastly different from those of the present day. All too often the location of a running track, a coal tipple, or a penstock materially restricts the maximum utilization of a locomotive. A delay to a streamlined passenger locomotive of several minutes at a water crane will receive the immediate and vigorous attention of the superintendent. However, because a yard engine is generally considered to be on an 8-hr. assignment, subject to the limitations and restrictions of terminal operation, a delay of many minutes at a water crane passes unnoticed. Compute the cost of these delays on any basis you choose and you will be faced with the stern reality of an actual loss which none of us can afford to sustain.

### What to Do

From the many suggestions offered by representative carriers we have gleaned the following:

1. Coal and cinder handling facilities should be analyzed carefully to determine if out-of-service time of locomotives can be saved by the installation or relocation of modern devices.

2. Coal chutes made of steel and fabricated at the manufacturing plant lend themselves to more economical installation and operating costs than concrete construction. Concrete chutes cannot be moved whereas steel chutes can be moved to new locations at a low cost.

3. Both coal chute and cinder pit operation can be had with complete automatic control devices, resulting in less labor required. Where clam shell buckets are now used for coaling engines and loading cinders, savings produced from the operation of automatic machinery together with the out-of-service time of locomotives, in many cases will pay a large return on the improvements. Consideration should be given the matter of installing a coal chute with sufficient capacity to carry over a 24-hr. period with an 8-hr. shift of labor.

4. Water cranes or penstocks should be located close to the point of operation to reduce the time lost in going and coming for water. If a water tank is not located closely to the point where a penstock is desired, consideration should be given to the installation of a penstock connected directly to a water main, as it has been found that a 4 or 6 in. branch line many times will supply sufficient water without the installation of an expensive water tank.

5. The time required for washout periods of locomotives should be given consideration, especially with reference to the use of blow-down steam for heating fill-up water as it has been found in many cases that inexpensive washout and fill-up water facilities can be installed at enginehouses, or improvements made in present facilities that greatly increase the useful time of locomotives and also produce desirable economies.

6. The location of sand and oil houses should be checked to determine if lost time can be cut down for locomotives that are in for supplies.

### Diesel Locomotives

1. The fuel oil supply should be located where the least amount of time is lost getting to and from the fuel station.

2. Inexpensive fuel stations with electric-motor or



gasoline-engine-driven pumps properly located will save considerable out-of-service time.

3. When fuel oil supply tanks are installed, the supply pipe should not be connected to the bottom of the tank as the residue and water in the oil will cause trouble with Diesel operation.

4. The supplying of Diesels with fuel oil and sand and making daily inspections can be done when the crew is in for the meal period.

5. At points where inspections are made, minor repair parts for both the mechanical and electrical apparatus should be kept on hand to expedite the necessary small repairs.

### General

1. Consideration should be given the use of spring switches or mechanical switchmen wherever possible in engine terminals to decrease the time lost in handling power in and out of engine houses.

2. Flood lighting of yards and engine terminals should be done wherever possible to speed up the movement of trains and locomotives.

3. The use of power grease machinery in place of hand methods will cut down the house time and will increase the useful time of locomotives; and will pay for itself in a short time.

4. Consideration should be given the use of car pullers at car repair pits, power plants, and other points where switch engines are now required to spot cars. Desirable savings in engine expense can be effected with the use of car pullers.

5. The use of curve-track-oilers should be checked closely as it has been found that this inexpensive device will increase rail life as much as 300 per cent, and will greatly increase the useful life of locomotives by decreasing tire flange wear.

6. At points where snow interferes with turntable operation, consideration should be given to keeping the pit cleared of snow by the use of various methods of melting snow.

### How to Increase Unit Production

Many factors affect the unit production of a locomotive, as follows:

- a. Road service requirements;
- b. Local service requirements;
- c. Relation of supervision, communication facilities, clerical assistance, and car inspection forces;
- d. Wage contracts and agreements.

These subjects should be studied carefully and analyzed by an operating committee of trainmasters and yardmasters with the superintendent as chairman. Credit should be given to supervising officers who deliver a high percentage of productive hours with relation to service hours. A thorough consideration of the factors resulting in low percentage of productivity is sure to develop ways and means for improvement.

With the advent of the manifest freight train, many of the operating difficulties of road operation have been reduced or eliminated. The reverse is true with respect to terminal operation, since manifest trains have necessitated increased pre-classification and other terminal service, although the time allotted terminals for the handling of these trains has been consistently reduced. Manifest trains, to a large extent, move at 12-hr. intervals, resulting in the concentration of traffic during two relatively short periods which require maximum locomotive service hours in terminal operation. Although the total number of cars handled in any given terminal

may not have increased, in many instances the number of locomotives employed has been increased substantially because of the concentration of road movements in these relatively small periods of the 24-hr. day. The economy of this type of operation can be measured only from a perspective which includes the savings in time and expense with reference to road operation as compared with the increased expense and reduced locomotive utilization incurred in terminal operation.

The burden of road service requirements may be lightened somewhat through the adoption of one or more of the following suggestions which come to us from carriers who have tried them and find them helpful:

1. Proper study and thought should be given to regular schedules to harmonize so far as possible with terminal conditions, and particularly the calling of extra trains—which usually are of less importance—should be given careful consideration.

2. Where feasible and possible, consider groupings at preceding terminals which to a certain extent might be done automatically while switching and handling trains at such terminals.

3. So far as possible keep loads separated from empties on mixed trains to permit prompt handling of the loads and avoid being required at a rush hour to switch the entire train, which may be 50 per cent or more empty cars.

4. It is essential that road conductors deliver suitable tallies or switch lists of their trains to enable quick preparation of trains for switching, prompt information in regard to dimension cars if any, etc.

5. It is also essential that yardmasters or others concerned at terminals duly receive proper makeup of trains so that all concerned may be familiar with the requirements; it is also essential that prompt delivery of bills be effected to the proper place on arrival of trains.

6. Prompt dispatchment of trains in accordance with schedules, or at the time called for, is also essential to clear the yard for free use by yard power.

### How Many Locomotives?

Local service requirements largely determine the number of locomotives which must be employed during certain hours and thus arbitrarily limit the utilization which can be effected. Railroads have consistently improved the frequency and character of their terminal service to freighthouses, team tracks and industrial sidings. The interval between the arrival of a car from the road in a manifest train and its placement on the delivery track has been reduced to a minimum at the expense of increased yard switching hours. Similarly, the interval between the receipt of a car from a shipper and its dispatch to road has been reduced. These changed conditions, however, need not adversely affect all terminal operation.

Most industries, of course, ask for switches at the time most convenient to them. However, through conference and close co-operation, in many cases, the problem can be worked out so that they can each secure their switching at a reasonable time, and one locomotive can serve a number of industries without difficulty. Where an industry has sufficient track room to take care of its requirements for 24 hrs. this is not difficult, but there are a number of large industries where the track room is limited by physical conditions and frequent switching is necessary.

At large freighthouses the closing of the cars on different tracks for different trains should be staggered so that the house can be pulled with the minimum number of engines. When a large freighthouse is closed all

at once and there is a limited amount of time available to dispatch the various trains, a large number of locomotives are required to pull the house and get the trains moving with the least possible delay; whereas, if the closing is staggered the number of locomotives can be reduced as one engine may be able to pull two or more trains.

The switching of repair tracks, roundhouses, coal chutes, etc., and other non-revenue work should be done at a time when it will not interfere with the switching of revenue cars.

### Supervision

Ask your auditor to tell you what it has cost during the last year to own and operate the locomotives under your supervision. Lest these figures become too large to comprehend, reduce them to unit cost per hour or per minute and apply this rate to the aggregate minute's delay in your operation directly chargeable to lack of supervision. Against this established cost, weigh the value of a man who by alert and intelligent supervision can eliminate those delays. We believe that management has no desire to achieve payroll reduction at any price. It is entitled to a statement of facts which accurately describe a given situation, the cost of an unsupervised operation, and the savings to be realized from the addition of a supervisor.

In the questionnaire, we found that almost every carrier whose reports indicated a relatively high percentage of utilization, indorsed those reports with comments which might be summarized, "Educate the yardmaster in intelligent and energetic supervision." All the qualities of leadership which the superintendent possesses can be displayed in the program which he designs and executes for the instruction and guidance of his operating staff. A yard master is entitled to know more about his job than the number of cars received and forwarded, and the number of engine hours worked during his trick.

The principal function of supervision is the intelligent planning of the work to be performed by locomotives and the prompt execution of the plan. Therefore, wherever there is occasion for the operation of a locomotive subject only to the direction of the crew foreman, it must be expected that a lower utilization will be effected than where the work of that engine is correlated with that of other crews. The little delays which result from taking too much time at the penstock or the coal tipple, in emptying the ashpan, in filling the lubricator, in receiving orders from the yardmaster or supervisor, in waiting for cars to be bled, slowly but surely dissipate the possibilities for the maximum utilization of a locomotive in productive service.

Actual time wasted is frequently the prime cause for the operation of additional crews. Supervision should be so located and trained that no matter how congested or extensive the terminal facilities may be, there will be a minimum of opportunity for a crew to waste valuable minutes which may be computed in transportation expense at approximately 25 cents per minute. The policing of individual assignments is a job that is never completed and presents just as many possibilities for savings at the beginning of any trick as were in existence at the start of any other trick.

### Communication

Industry in general has been quick to capitalize on the benefit of the improvements in communication. Railroads, on the other hand, have been slow to adopt these newer forms of communication. Some of us are still operating under the handicap of messenger service for the handling of train consists, waybills, and inter-

departmental communications. Almost any one can find opportunities for the more efficient direction and control of locomotive operation through the installation of a better system of communication.

One carrier has equipped its largest terminal with loud speakers, thereby permitting the entire operation of that terminal to be controlled from a central office. The resulting reduction in yard engine hours has more than returned the cost of installation. Another carrier has materially improved its operation through the photographing of through waybills.

The efficiency of terminal operation is primarily dependent upon the control of detail. These details are not uniform, or subject to prearrangement, but are the results of conditions which change from hour to hour. All departments are involved in the successful operation of any given terminal and the importance of direct communication between all officers and all points within the terminal cannot be overemphasized.

### Wage Agreements

There have been varied results from the National Railway Adjustment Board's ruling on continuous service when it became necessary to "hook up" all engine assignments working in similar service within one terminal. Many superintendents found that additional engines were required and that opportunities for servicing locomotives between shifts were eliminated because the tricks could not be staggered. In some cases we found the hooking up of yard assignments to have had beneficial results where the work has been re-arranged so as to permit a unit to be continuously employed. Possibilities for overtime were thus reduced to a minimum.

The application of the starting time rule and its interpretation by the National Railway Adjustment Board has had effects of far greater significance than is appreciated by the superintendent himself or the public at large. In many cases local agreements permitted individual assignments to be operated during those hours when the shipper needed service or through freight trains required yard switching. The strict application of the starting time rule without regard to any established practice resulted in the employment of a substantial number of additional assignments. While these additional requirements for locomotives have not precipitated a shortage of motive power during the recent periods of depressed traffic, when and if railway traffic assumes normal proportions an immediate demand for additional locomotives will result. In the meantime, the increased expense of yard operation and the decreased locomotive utilization resulting from this one fact are being hidden in part and the gravity of the situation is not being fully appreciated.

### Scientific Control

The currency of control in the operating department is coined in terms of cars and machine-and-man hours. Utmost simplicity, therefore, is possible in the daily control record which each superintendent requires for most effective terminal administration and includes the following principal items:

1. The traffic load, or the service to be performed, subdivided to indicate the requirements of road, freight and passenger schedules, local stations and industries, and company or non-revenue operation.
2. The character of service to be performed, such as industry, freight and passenger station, transfer, and classification switching.
3. The units of man-and-machine hours employed to satisfy the above requirements.



4. The determination of unit output resulting from the correlation of the above three.

In this record revenue is expressed by the first item, expense by the second and third, and operating ratio by the fourth. In some terminals an honest attempt is being made to determine the cost per car handled, indicating a most commendable effort on the part of the superintendent to control his terminal operation. However, since a railroad does not bargain for the various cost units which determine the expense of an engine hour, but an engine hour costs relatively the same from day to day, efficiency can be measured more accurately and understood by the unit of cars handled per hour than through the more roundabout process of applying dollar costs to service hours.

The superintendent should give proper weight to the hour of overtime when added to the hour at straight time. Some men equate an hour overtime to one and one-half hours at straight time, owing to the fact that crew wages are paid on this basis and although some degree of overstatement results from the application of this formula, nevertheless, the results are more conducive to successful management than an understatement would be. Many a healthy argument has resulted from the attempt of one good operating man to prove the success of his management by the fact that he produced a greater number of cars handled per hour. The immediate reply was that the comparison was not just because of the different conditions existing in the terminals under consideration. However, if the locomotive service hours in each of these terminals had been distributed between the various types of service indicated in the second item above and similarly the cars handled had been classified with respect to the types of service in which handled, a more accurate measure could have been applied to indicate the effectiveness of the respective operations. In a large terminal employing approximately 100 switch and transfer engines per day, the superintendent is informed daily of the following facts:

1. Cars loaded and unloaded on industry and team tracks.
2. Cars received from and delivered to freight stations.
3. Cars received from and delivered to connecting lines.
4. Total cars.
5. Switch crews operated, and their average overtime.
6. Switch crew hours, equated  $1\frac{1}{2}$  to straight time hours.
7. Transfer crews operated, their average overtime, and cars handled.
8. Total transfer hours equated to straight time.
9. Cars handled per transfer hour.
10. Total switch and transfer hours equated to straight time.
11. Cars received and delivered per straight time hour, computed by dividing Item 4 by Item 10.

Because each crew conductor indicates on the reverse of his time slip the distribution of his service hours as between yard work, transfer, industrial and freight house switching and non-revenue service, the terminal superintendent is enabled to measure the unit output per engine hour in each of these services. When a variation occurs in the average cars handled per engine hour, he quickly analyzes the unit output in each of the services which combine to make the general average and the cause of the variation is readily located. This method has been applied approximately two years and the results have been sufficiently satisfactory to receive the commendation of the chief operating officer of the railroad.

## Communication . . .

### Favors Fare Experiments Below the 2-cent Level

WELLESLEY, MASS.

TO THE EDITOR:

Unlike most of the witnesses mentioned in the article describing the fare extension hearing, in *Railway Age* for January 13, I cannot claim to be any kind of a transportation expert. However, I do use the railroads exclusively for what traveling I do myself, and on various occasions have persuaded other persons to go by train rather than by bus. Accordingly, I believe that my opinions might be of some value to railroad officers.

I am strongly in favor of a basic 2-cent coach rate, with experimental fares below that level. The 2-cent rate was never given a fair chance. The railroads hardly advertised it beyond the limited circulating area of their own timetables. The sharp reduction from the previous 3.6-cent rate, which could have been an enormous promotional advantage, was never properly emphasized.

The sliding-scale rate is far too complicated. Simplicity is a definite attraction. While the 2-cent rate prevailed, it was easy at any time, with the aid of the mileage tables included in most timetables, to figure immediately exactly what the ride would cost. Now, it is always necessary to consult the agent, even before deciding what method of travel to use.

Among all the elaborate statistical data presented by Vice-President Franklin of the Pennsylvania, I wonder if there was any estimate of the number of one-way passengers discouraged by high rates from going by rail, or of the proportion of potential one-way passengers that a low one-way rate would attract?

The aversion of some railroad officers to any new or experimental methods almost justifies some of the sharp criticisms directed at them. I wonder what rate concession there is to attract the passenger who desires to go by one route, and return by another. By limiting the sliding-scale feature to round-trips, each road may reserve certain trips to itself, but it is surely preventing many trips from being made by rail at all, and reducing the patronage of the roads as a group.

The special World Fairs round-trip rates are, I believe, excellent transportation values. Yet they hardly interfere with the basic rate "experiment," or compensate for rates that are generally too high. If such rates were successful between New York and San Francisco, why shouldn't they be applied universally? I have no desire to go to either Fair, but if comparable rates prevailed generally, I would have made half-a-dozen trips to various places during the same period.

I believe that most of us realize that railroads no longer offer a monopoly service. Only rate decreases, not increases, can be successful in boosting net revenues. It is my observation that there are still plenty of empty seats in most passenger trains. A sharp gain in traffic could be handled with no appreciable increase in out-of-pocket costs. A 25 per cent reduction in one-way fares that caused patronage to double would obviously be profitable. If accompanied with effective advertising and the superior service that the railroads are capable of giving, such a reduction might well have such an effect.

ROBERT B. SHAW.

A GROUP OF 43 VETERAN COMMUTERS, two of them women, who have been commuting on Boston & Maine trains for more than 50 years, were invited by that road to join with a group of railroad officers in an informal dinner held recently in Boston, Mass. The group, which collectively has a record of 2,367 years of daily travel on B. & M. trains were joined by 17 conductors and ticket agents of the road who, although still in active service, have been selling and punching commuters' tickets for a half century or more. As was announced previously in *Railway Age* news pages, each of the commuters was presented with a gold lapel pin reading "50-year commuter—Boston & Maine railroad." The oldest of the group is credited with 74 years of regular commuting between Reading, Mass., and Boston. He is 93 years of age.



# NEWS

## Naval Stores Case Decided

Noteworthy statement by Eastman as minority tries to protect costly truck rivalry

Because it was not confronted with "ruinous competition," making the "immediate situation" such as "to demand the prescription of minimum reasonable rates," the Interstate Commerce Commission in a six-to-five decision has sanctioned the truck-compelled rates proposed by the railroads in the Naval-Stores-from-Mississippi-to-Gulf-Ports case wherein the evidence included comparative data on the costs of rail and motor transportation compiled in accordance with formulae developed by the Bureau of Statistics. Chairman Eastman in a separate concurring opinion agreed that the suspended schedules had been justified by the railroads, but he did not think that the majority decision was "in accord with our full duty" in that it did "nothing to prevent the process of rate cutting from starting again."

The chairman thought that the record justified prescription of minimums setting truck rates two cents per 100 lb. above the rail rates. He outlined his views at some length so that "by so doing I may in some future case of like character (and we shall have many) get the benefit of some criticism or reaction which may be helpful." Other separate expressions, both dissenting, came from Commissioners Lee and Alldredge who thought that minimum rates should have been prescribed on levels higher than the proposed rail charges; and Commissioner Alldredge would have had the truck minimums only one cent higher than those of the railroads. Both these dissents, had they prevailed, would have had the effect of forcing the railroads to keep their rates so high that the admittedly less-economical trucks could continue to share in the traffic—thus denying to the public the "inherent economies" of rail transportation. Commissioner Porter joined in the Lee dissent, while Commissioner Caskie agreed with Mr. Alldredge. The dissent of Commissioner Rogers was noted, but he didn't let on why he disagreed.

The schedules at issue in the proceeding, docketed as No. 27571 and embracing I. & S. Docket No. 4265, were originally filed to become effective October 24, 1936. Principal respondents were the Gulf, Mobile & Northern and the Gulf & Ship Island who proposed to establish reduced rates on

### 11 Months Net Income Was \$57,260,000

Class I railroads of the United States in the first eleven months of 1939 had a net income of \$57,260,000, the Association of American Railroads announced on January 30. For the first eleven months of 1938, Class I roads had a net deficit of \$143,845,000. For November, 1939, the net income was \$33,004,000, compared with a net income of \$7,555,000 in November, 1938.

naval stores (rosin, pitch, pine oil and turpentine) from Hattiesburg, Miss., Columbia and Laurel to Gulfport; from Columbia to New Orleans, La.; and from Laurel to Mobile, Ala., for export or coastwise movement. Suspension of the schedules came upon protest of the Evans Truck Line, principal competitor of the railroads for the traffic involved. The reductions proposed by the railroads and now found justified by the majority decision ranged from three to five cents per 100 lb. on rosin and from 10 to 13 cents on pine oil; for example the rate on rosin from Hattiesburg to Gulfport would drop from 11 cents to six cents (the present truck rate is 10 cents), while the rate on pine oil between the same points would drop from 22 cents to nine cents (the present truck rate is 12 cents plus a half cent loading charge).

In reviewing the evidence the majority gives scant attention to the cost data introduced by the Bureau of Statistics, although it did observe that the cost figures developed cannot be taken as typical of the cost of handling railway and truck traffic for comparatively short hauls—the railway costs are low because of "favorable operating conditions" and the truck costs "are unfavorably affected by the empty haul in one direction and the average load of only eight tons." Coming to the language wherein it sidesteps the minimum-rate question the commission has this to say:

"The paramount duty laid upon us is to regulate both transportation agencies, not in the interest of one or the other of such agencies, but in the public interest.

"Healthy competition between different agencies of transportation is undoubtedly in the public interest. Ordinarily either may initiate rates that will in the opinion of its management enable it to obtain or retain desired traffic provided that such rates are compensatory and do not cast a

(Continued on page 261)

## Norris Warns of Propaganda

Southern chief shows up ballyhoo on "interstate barriers" and "highways for defense"

The clever propaganda injected into the public questions of state "barriers" to interstate commerce and the alleged necessity of super highways and waterways for national defense was laid bare by Ernest E. Norris, president of the Southern, in an address before the Southern States Industrial Council in Atlanta, Ga., on January 23, entitled "Don't Believe All You Hear." Expressing the opinion that while the great majority of people have developed an immunity to war propaganda and have learned to discount the ballyhoo of partisan politics, they nevertheless seem to lose the ability to appraise facts and figures in matters closer to their individual lives and interests—such as transportation.

As illustrated in the current "trade barriers" propaganda it can be seen, said Mr. Norris, that labels such as "Don't Balkanize the United States" are being constantly repeated until they become fixed as truth in the minds of a large segment of our population. The truth of the matter, declared the speaker, is that the "barriers" which the motor truck interests wish to abolish are perfectly legitimate efforts of states to protect their highways and the interests of their tax-paying citizens. As for "reciprocity," truckers want simply to be free of state taxation and regulation—"except that of their 'home' state, which will inevitably be that state which taxes and regulates the least."

The speaker went on to point out that state regulations of commerce is not new; that for many years states have taken measures to protect health, stop the running of "bootleg" products, confine agricultural pests and defend local industry and agriculture against mislabeled commodities. Yet there was no outcry against trade barriers in the past nor did the railroads raise an outcry because an occasional quarantine cut into freight traffic. It is only with the coming of the giant commercial truck that "trade barriers" suddenly became the bogey man of the propagandist.

These efforts of highway truckers may well be applied in illustration to the railroad industry, according to Mr. Norris. "The Southern railway is incorporated in the Commonwealth of Virginia. Suppose we howled about 'trade barriers' because

(Continued on page 262)

## \$509,000,000 Gift To N. E. Road Users

Highway users in 3 N. E. states get subsidy from general taxpayers in 28 years

General and land taxpayers in the southern New England states of Massachusetts, Rhode Island and Connecticut coughed up about \$509,000,000 between 1909 and 1936, inclusive, to subsidize state and secondary roads and city streets, according to a 216-page study of highway costs in the three states prepared by C. B. Breed, consulting engineer and professor of railroad and highway transportation at the Massachusetts Institute of Technology, made public in January by the trustees of the New York, New Haven & Hartford. The conclusions of the study were introduced as evidence in recent hearings before the I. C. C. in connection with the New Haven financial reorganization, but the underlying data are here made public for the first time.

The study is based upon the so-called "public utility concept" of improved highways and upon cost and payment allocation principles set down in the study of highway costs in the entire United States submitted by Professor Breed, together with Professors Clifford Older and W. S. Downs to the A. A. R. in January, 1939 (reviewed in the *Railway Age* for February 18, 1939, page 310). Its application of these principles is also similar to studies made by the highway departments of Missouri and Illinois, reviewed in the issue of December 3, 1938, page 814. On these bases, the study estimates that during the 28-year period highway users actually paid only 33 per cent of the annual cost of highways and streets, while the general public paid about 67 per cent. According to carefully worked out cost allocations, motor vehicle operators, as a class, should have paid 65 per cent and the public 35 per cent. For the three states separately the conclusions are:

### Massachusetts

Highway users paid 29 per cent; should have paid 60 per cent.  
Public paid 71 per cent; should have paid 40 per cent.

### Connecticut

Highway users paid 42 per cent; should have paid 72 per cent.  
Public paid 58 per cent; should have paid 28 per cent.

### Rhode Island

Highway users paid 29 per cent; should have paid 71 per cent.  
Public paid 71 per cent; should have paid 29 per cent.

Expressing the relationships in absolute amounts, the study finds that highway users in the three states should have paid a total of \$1,024,000,000 during the period under discussion; actually they paid but \$516,000,000. The general taxpayers (land, income, etc.) should have paid \$560,000 as their proper social obligation for highway costs; actually they did pay about \$1,069,000,000, which leaves a subsidy of about \$509,000,000 which they gave to highway users.

In computing costs, the author treated all roads and streets as a single system of

transportation, as do motor vehicles in their operations. Rejecting annual highway "expenditures" as an improper basis upon which to compute annual costs properly chargeable to highway users because they "fluctuate from year to year depending upon economic conditions and the whims of the legislators," he determined *annual costs* as the true measure, including yearly amortization charges, interest and taxes on unamortized capital cost and annual recurring expenses for maintenance and operation. In determining depreciation rates, he set up the following *average lives* for all highway elements:

For capital invested prior to 1909, 20 years  
For capital invested from 1909-1921, incl., 25 years  
For capital invested from 1922 to date, 30 years

After a study of rates of interest on state highway and city street bonds, he set up 4 per cent as an average interest rate, and established 1 per cent as a fair property tax chargeable to highways, comparable to what the railroads pay on their properties.

To arrive at a proper allocation of highway costs as between general taxpayers and highway users as a class, Professor Breed established a formula which, in effect, favors the latter group. His method, briefly, was this. For a long period prior to 1909, the public paid for all roads through general taxation. The annual rate of such expenditures for rural roads amounted to about \$1.00 per capita of population in Massachusetts and Rhode Island and \$1.65 per capita in Connecticut. Expenditures for city streets amounted to about \$3.60 per capita of city population in Massachusetts, \$2.50 in Rhode Island and \$2.40 in Connecticut. The author assumed that these amounts are those which the public would have been willing to continue to pay for highways out of general taxation for the period 1909-1936. Therefore, he charged against the public in each year subsequent to 1908, the amounts obtained by multiplying the per capita rates prevailing prior to 1909 quoted above by the population of states and cities to which they applied, thus reflecting increases in population. The remaining portion of the annual highway cost he charged against the highway users as their fair share of these costs.

By methods applied in previous highway studies cited above, Professor Breed arrived at conclusive findings as to cost and payment allocation among the various classes of highway users. In 1936, in the three states studied, passenger motor vehicles paid 62 per cent of highway cost charged to them in the study; the largest and heaviest trucks paid only 24 per cent of the amount charged to them; intermediate types of vehicles in all instances paid less than their fair proportion, with the exception of farm trucks, which contributed slightly more than the study charges against them. According to the study, commercial trucks of over five tons should have paid on a use and rate basis \$1,275 per vehicle toward highway cost; actually they paid only \$297, leaving a public subsidy of \$978 to be paid through general property and other forms of taxes.

## Experts Prescribe Rail Credit Aids

Credit men hear Splawn, Dick and Fletcher analyze cures for railroad health

Railroad credit and the means of restoring it were discussed from the viewpoint of a federal regulatory authority, a railroad securities specialist and a railroad lawyer deeply concerned with legislation, at a dinner meeting of the New York Credit Men's Association devoted to "Transportation Problems and Sound Credit," held in New York on January 30. Commissioner M. W. Splawn, of the Interstate Commerce Commission, reviewed the ups and downs of railroad credit since the World War and put forth an outline of the job he believed the Commission must do to achieve a sound and healthy transportation system. Fairman R. Dick, of Dick & Merle-Smith, New York investment house, presented a talk, "Protecting the Investor," which he devoted largely to a refutation of the "Put 'Em Through the Wringer" theory. Finally, Judge R. V. Fletcher, vice-president and general counsel, Association of American Railroads, discussed in a general way pending congressional legislation on transportation matters.

A resolution was also offered at the dinner by which the Credit Men's Association would authorize its committee on transportation to bend all efforts to the establishment "of a sound national transportation policy involving equality of opportunity, of regulation, and of taxation for each form of transportation, with special privileges to none."

Commissioner Splawn discussed generally the considerations which bear upon railroad credit. He devoted a great deal of his speech to an analysis of the diversion of traffic to other transport agencies, pointing out that while the recent improvement in traffic must bring a feeling of relief to railroad officers, railroad traffic indexes nevertheless are lagging behind those of other industries generally. As for the future, he held that while transportation facilities are now greatly in excess of demand, there are possibilities for large increases in the latter. "Certainly the situation with reference to our foreign trade cannot be much worse in the future than it has been since the Hawley-Smoot tariff. Despite dislocations incident to foreign wars, any change in our foreign trade will likely be for the better. The total production for domestic use will gradually increase through the development of new enterprises and the enlargement of existing ones. Our transportation facilities at present are clearly more than the existing traffic will profitably support but traffic will likely catch up again as has been the case during several periods in the past."

He also saw great hope in the pending transportation bills now in conference. Discussing the possibility of passage this session, he declared: "The conferees are so familiar both with the issues and with the differences in language between the two



bills [i. e., of the Senate and the House] that they will be able to compose the differences and bring out a conference report without finding the labor unduly burdensome or exacting. Probably as much of their energies will be consumed in conversation with those who hope yet to see their ideas prevail as will be required to perfect the bill." He also believed that the proposal to place a "floor under the rate structure of all forms of transportation," if carried out, would help both the railroads and their competitors to earn adequate wages for both labor and capital. This is especially desirable, he noted, since transportation affords society at large its greatest labor-saving device.

In tracing the development of highway transportation, Commissioner Splawn brought out some interesting side-lights. For example, when the public clamored for good roads for pleasure cars during the 'Twenties, railroad executives pointed out that the new highways would carry freight as well as passengers and suggested that they be built as feeders to the railway net. But state authorities were anxious to satisfy the public; it was easy to build roads parallel to the railroads because of advantageous grades; then, too, existing population centers were along the railroads. In addition to these considerations, the speaker explained, "municipal taxing districts found it convenient to lay out the road districts by the side of the railroads so that special highway taxes could be levied on the railroads." Since most of state and local contributions for highway construction were obtained through the issue of bonds predicated upon local taxes, and "usually the heaviest taxpayer was the railroad," the latter have contributed largely to the roadways of their competitors.

Speaking to the credit men in their own language, Fairman Dick declared that a credit man, looking over the approximately eleven billion dollars of long-term bonds of the railroads outstanding to date, would express himself as follows: "Seven per cent of my credits can be considered prime and an additional 23 per cent may not entail substantial write-offs at the present time but nevertheless justify practically no increases in amounts. As to the balance of 70 per cent, or almost 8 billion dollars, a very serious condition exists. Of this balance approximately 4½ billion is not actually in default but would require a 50 per cent write-off if it is desired to realize cash today. The balance of about 3½ billion dollars, the obligations of the bankrupt roads, is practically all in default as to interest or principal, or both. Converting these credits into cash today would require a write-off of 90 cents out of every dollar." He added that such a picture would probably constitute a "nightmare" for any credit man.

It was the speaker's opinion that the greatest effect of this collapse of railroad credit is not so much realized losses of investors but rather resultant inability to obtain new capital. "It is this stagnation of railroad improvement programs that constitutes the very heart of the railroad crisis," Mr. Dick then discussed the widely-held "remedy" of putting the railroads through the wringer. Joining the

facts and the theory, he described the application of the "remedy" as follows: "These roads have actually earned during the depression only 1¼ per cent on investment in plant, yet, according to the 'wringer' theory their credit will be restored if their interest charges are reduced to conform with these earnings. Once this is done it is assumed that investors will eagerly loan more money and our railroads will eagerly borrow it. In other words, investing money at a cost of say 4 per cent to obtain a return of 1¼ per cent can be made, according to the 'wringer' theory, an attractive business proposition to both lender and borrower." Taking a purely hypothetical case, if a person goes bankrupt through borrowing money at 6 per cent and investing it at 1 per cent, it is certain that if he repeats the process he will go bankrupt again. The "wringer" theory ignores this fact, fails to solve the problem and furnishes merely temporary relief.

His whole talk led up to the final point that "in the last analysis, therefore, the program for raising additional capital at normal rates of interest, to invest in 'bricks and mortar' to yield subnormal returns in net earnings, is sheer economic suicide, and the denial of this fact by the advocates of the 'wringer' theory furnishes probably one of the best illustrations of economic illiteracy in all history." His chief objection to the theory is that as long as it is widely held, "it constitutes a barrier to any concerted move for the restoration of our railroads to financial health for it denies the need for an increase in net earnings."

Discussing generally the Omnibus Transportation bill now pending in Congress, Judge Fletcher reminded his audience that no one in the railroad industry entertains any thought that such legislation, even if enacted in the form most favorable to the railroads, will not and of itself, solve the railroad problem. "The railroads do not live by legislation alone, but by the exercise of ingenuity and ability in meeting economic problems as they arise; by reason of their superiority as agencies of transportation; by commanding and retaining the confidence of the people as an essential adjunct to business. Laws do help and hinder, according as they may furnish stimuli or handicaps, but they never can permanently keep alive a business that is outmoded, however much the collapse of that business may injure investors or employees."

Treating of the argument of certain parties that I.C.C. regulation would destroy legitimate water transportation, the speaker referred to the prosperity of motor carriers since they were brought under federal regulation in 1935. It was his opinion that the only interest which will be materially disadvantaged by regulation of water carriers "are those which pay a low water rate, secretly negotiated, and sell upon the basis of the published railroad rate. The present incongruous and unfair situation lends itself admirably to this method of exploitation."

As for the argument that the railroads should seek relief from the burdens of regulation rather than extend it to other car-

riers, Judge Fletcher declared that to test the sincerity of the proponents of this idea, he has suggested "that we inaugurate the process of easing the burden of regulation by repealing the long and short haul clause." He added that such a suggestion invariably produces "inarticulate explosions of vexation." The chief point made by the speaker with respect to the extension of regulation, was that great industrialists, "masters of the situation by reason of control of vast tonnages," are able to secure rates from unregulated carriers well below those offered to their small rivals. He pointed out that the act to regulate commerce was originally passed in 1887 in order to prevent such discrimination in favor of the strong. It was his opinion that the House version of the Transportation bill S. 2009 goes too far in exempting contract bulk carriers, and expressed preference for the Senate bill which gives the I.C.C. authority to determine when this type of contract carrier shall be regulated in the interest of fair competitive conditions.

Judge Fletcher expressed opposition to certain features of the House bill, most of which consists of amendments voted into the bill by Committee of the Whole and which do not have the approval of the committees themselves. He urged that the Harrington amendment be eliminated as a virtual veto of all consolidations in advance and also the so-called Wadsworth amendment (providing that the I.C.C. should not suspend a reduction in rates, so long as such rates give a compensatory return), as impossible of administration and productive of mischievous discriminations. Lastly, he expressed disapproval of the Jones amendment which provides that if there is an export rate on manufactured articles lower than the domestic rates, there must be a similar reduction in export rates applicable to farm commodities. The Judge held that this amendment ignores the purpose of export rates and the effect would probably be to make export rates impossible.

In closing, the speaker warned his audience that the recent traffic rise has by no means made remedial legislation unnecessary. He pointed out that a sound credit basis for railroads demands that there be a margin of 20 cents out of each dollar of revenue; any amount less than this is dangerously low because of the fluctuations in traffic. In 1939 this margin was only 14.7 per cent, only a little better than 1935, and well below the safety margin of 1936.

#### Lawford H. Fry to Lecture at Franklin Institute

Lawford H. Fry, railway engineer, Edgewater Steel Company, Pittsburgh, Pa., will lecture on "The Steam Locomotive, Its Development and Present Position in Railroad Transportation," at the Franklin Institute, Philadelphia, Pa., on February 21.

#### Baltimore & Ohio Pioneers in Television

What is said to be the first railroad television broadcast was made by the National Broadcasting Company from its studios in the RCA Building, New York City, on Wednesday evening, January 31, from 8:30 to 9:00 p.m., the Baltimore & Ohio provid-

ing the program. The plot was built around two children, a boy and a girl, traveling on a Baltimore & Ohio train. The hostess saw that they were made comfortable, explained the various train services to them, and then showed them a brochure illustrating various scenes in the history and development of the Baltimore & Ohio Railroad.

This provided the opportunity for several different types of "Shots." A number of historic scenes were acted by a capable group of professional actors; these included such events as the discussion by prominent business men of Baltimore, which led to the building of the Baltimore & Ohio, and Lincoln's Gettysburg speech. Several "still" pictures of historic scenes and interesting equipment were also shown. Another feature which added greatly to the program was music by a mixed chorus of Baltimore & Ohio singers, dressed in early American costumes. The climax was reached when a series of moving pictures was reproduced of Baltimore trains, showing both exterior and interior views. Five cameras were required and while the broadcast was made by combining scenes made in different studios, the sequence was excellent.

### Senate Gets Bill to Make Train Wrecking a Crime

Senator King, Democrat of Utah, has introduced S. 3202 "to make it a crime to wreck or attempt to wreck a train engaged in interstate commerce." The bill is identical with H. R. 8086, previously introduced in the House by Representative Walter, Democrat of Pennsylvania, as noted in the *Railway Age* of January 27, page 226.

### Neon Sign Marks Western Pacific Ticket Office

A three-story neon sign designates the Western Pacific's ticket office in San Francisco, Cal., since it was moved to its new location at 299 Post street, on January 29. The new office occupies the first floor, has modern appointments and its walls are decorated with murals depicting scenes along the railroad.

### Durham Quits A. A. R. Board

Directors of the Association of American Railroads held their regular monthly meeting in Washington, D. C., on January 26. The only announcement made was that with respect to the resignation from the board of E. M. Durham, Jr., chief executive officer of the Chicago, Rock Island & Pacific. It was stated that Mr. Durham resigned because of the press of other business.

### S. P. Claim Against Cotton Belt Upheld

A \$17,822,350 claim of the Southern Pacific against the St. Louis Southwestern has been approved by the Federal District Court at St. Louis, Mo., following a recommendation made by a special master in chancery. The claim is the amount of a loan, secured by \$24,327,000 of Cotton Belt bonds, made with the Reconstruction Finance Corporation and later taken over by the Southern Pacific. Two foreign

banks which hold Cotton Belt bonds, contended that the claim should not be allowed since the R. F. C. loan benefited the Southern Pacific as owner of 87 per cent of the preferred stock and 77 per cent of the common stock. The court also decided that bondholders be paid in dollars instead of Dutch guilders.

### Yale Offers Transportation Scholarships

Yale University announces that its Committee on Transportation is offering three \$500 Fellowships for the academic year 1940-41 for work in transportation in the graduate school. The grants are equally available for those interested in the engineering or the economic aspect of the field. Applications should be filed with the registrar of the graduate school not later than March 1, 1940.

### House Passes Railroad Mail Pay Bill

The Treasury and Post Office Department's Appropriation bill for the fiscal year ending June 30, 1941, as passed by the House on January 25, contains an appropriation of \$107,000,000 for the transportation of mail by railroad and for mail-messenger service. This figure is an increase of \$5,010,000 as compared with the appropriation for the fiscal year 1940, but is \$1,000,000 under the budget estimate.

### Winterrowd Elected to Franklin Institute Board

W. H. Winterrowd, vice-president, Baldwin Locomotive Works, Eddystone, Pa., was elected a member of the Board of Managers of the Franklin Institute of Philadelphia on January 17. In this capacity he will join a group of leading citizens representing industry, finance and education in directing the affairs of the 116-year-old organization devoted to the advancement of science and the promotion of the mechanic arts.

### Two Employees Killed In Lehigh Valley Collision

A Lehigh Valley Diesel-electric switching locomotive and a deadhead rail-motor car collided in Rochester, N. Y., on January 27, causing the death of the fireman and brakeman of the locomotive. The switching engine had just left the passenger station hauling three loaded coal gondolas when it crashed head-on into the rail-motor car, which was proceeding into the station area. The cause of the collision has not yet been ascertained.

### Status of Rail Court Bill

Representative McLaughlin, Democrat of Nebraska, and chairman of the bankruptcy subcommittee of the House judiciary committee, which is handling the proposed railroad reorganization court bill, announced on January 24 that the subcommittee would receive not later than February 1 answers to the views submitted by Max Lowenthal, special counsel to the Senate interstate commerce subcommittee on railroad financing.

According to Mr. McLaughlin, no hearings will be held, the subcommittee taking

the position that hearings held during last session were sufficient. The subcommittee now has before it S. 1869, the bill passed by the Senate creating a special railroad reorganization court, and the substitute measure proposed by Representative Chandler, Democrat of Tennessee, before he resigned to become Mayor of Memphis, Tenn., details of which were given in the *Railway Age* for December 23, 1939, page 976.

### Greyhound Lines to Improve "Rest Stop" Facilities

The Pennsylvania Greyhound Lines, affiliate of the Pennsylvania and the New England Greyhound Lines, affiliate of the New York, New Haven & Hartford, have been conditionally authorized by the Interstate Commerce Commission to assume obligation as guarantor, respectively, of not exceeding \$150,000 and \$75,000 of secured promissory notes to be issued in connection with the financing of improved lunch and "rest stop" facilities.

### Dave Robertson Wants Wheeler for President

President D. B. Robertson of the Brotherhood of Locomotive Firemen & Enginemen has issued a statement urging the election of Senator Burton K. Wheeler of Montana as the nation's chief executive. Believing that President Roosevelt will not seek a third term, and should not break "tradition" by doing so the brotherhood president declares that Wheeler can be relied upon to not only "protect the social and economic gains" made by the Roosevelt administration but also to "keep us in the forefront among the nations of a changing world."

### Pendulum Cars Being Constructed

Construction of three pendulum type passenger cars, one each for the Atchison, Topeka & Santa Fe, the Great Northern and the Chicago, Burlington & Quincy, has been started by the Pacific Railway Equipment Company. Development work on this equipment, as reported in the *Railway Age* of February 12, 1938, page 294, was sponsored by C. T. Hill, with the cooperation of the Santa Fe to the extent of providing motive power and testing facilities. When the new cars are completed later this year they will be operated by the owning roads as a single train in experimental service.

### Fairweather Describes New Role of Cost Accounting

That the growth of forms of transportation competitive with the railways has made sound cost accounting methods an essential part of regulation and rate-making, was the opinion expressed by S. W. Fairweather, chief of research and development, Canadian National, in an address before the members of the Canadian Society of Cost Accountants, Montreal branch, at a meeting on January 26 at Montreal, Que. Reviewing principles governing the regulation of railway rates and services, based on the former monopoly status of the railroads, the speaker pointed out that the theory of basing rates on what



the traffic will bear has been badly upset by the introduction of highway transport.

Mr. Fairweather held that regulation and control of railway services and rates must be considerably modified and that in the future regulation should be administered by a common authority for all forms of transportation, including among its bases, adequate cost accounting. Using the railroad "Square Deal" campaign in Great Britain (which has been interrupted by the outbreak of the European war) as an illustration, he stated that the general theory which the British roads have stressed is that if railways are to be expected to support industries by hauling their low grade commodities long distances they must have some claim upon the distribution of higher valued products of industry.

### Motions in Ball Suit to be Heard March 27

A hearing on pending motions in a \$5,000,000 civil damage suit filed against George A. Ball and the Frances Ball Foundation by Robert R. Young, Allan P. Kirby and the Seaboard Co., Ltd., will be held before the Federal Court at Indianapolis, Ind., on March 27. The plaintiffs charge that Mr. Ball violated the Securities Exchange Act by artificially raising the price before he disposed of the stock of the holding company which controlled the railroads and real estate comprising the Van Sweringen holdings. They also seek answers to about 800 interrogatories. The court will also rule on a defense motion to refer the suit to a special master in chancery, the plaintiffs having asked for a jury trial.

### Fashion Show on the "Orange Blossom"

Passengers who were lucky enough to be on board the Seaboard Air Line's all-Pullman "Orange Blossom Special" southbound on January 25, were invited to attend the latest in fashion shows—presented to them en route from New York to Palm Beach, Fla., by Saks Fifth Avenue, New York department store. The program consisted of three showings of the latest things in southern wear, and was presented in the club car of the train which served for the nonce as a mobile fashion salon. Each woman passenger was given a bottle of Faberge perfume as a memento of the occasion.

### Club Meetings

The Transportation Club of the Rochester (N. Y.) Chamber of Commerce will hold its 16th annual dinner in the Chamber banquet hall, Rochester, on February 20. T. I. Parkinson, president, The Equitable Life Assurance Society, will be the principal speaker, taking as his subject, "The Preservation of Business and Democracy."

The Central Railway Club of Buffalo, N. Y., will hold its next meeting, on February 8 in the Filmore Room, Hotel Statler, Buffalo. L. W. Horning, Eastern regional director, Competitive Transportation Research, Association of American Railroads, will present a talk entitled "New Frontiers in the Railroad Industry."

The Canadian Railway Club will hold its

next meeting in the Windsor Hotel, Montreal, Que., on February 12. A. Reyburn, foundry superintendent, Canadian National, will present an illustrated talk on "Mechanization of Foundry."

The Toronto Railway Club will hold its next meeting in the Royal York Hotel, Toronto, Ont., on February 26. T. V. Buckwalter, vice-president, Timken Roller Bearing Company, will present a paper entitled, "Steam Locomotive Slipping Tests and Photoclastic Study of Stresses in Railway Axles."

### Railroads Open "Vestpocket" Museum in Grand Central Station

A small, compact exhibition of old photographs, prints and other memorabilia depicting more than 100 years of railroading in the vicinity of New York, was opened last week in Grand Central Station, New York City, by the New York Central and the New York, New Haven & Hartford. Located in a small alcove adjacent to the "incoming trains" bulletin board, the "vest-pocket" museum contains such items as a view of Grand Central Station in 1871; reproductions of the noted "White Train" and a pioneer commutation ticket dated May, 1852. The collection is open to the public daily from 8 a.m. to midnight.

### Seek Dismissal of Red Cap Suit

The Terminal Railroad Association of St. Louis, Mo., on January 27 filed a motion in the district court asking for the dismissal of a suit brought by the Brotherhood of Railway Clerks and Station Employees in an effort to collect \$120,000 salary for 93 red caps and damages in equal amount, allegedly due under the Wage and Hour Act. The motion contends that the suit is invalid since the president of the Brotherhood, George M. Harrison, is not a party in interest and fails to name any employee who designated him to file it. It also questions jurisdiction and alleges that the suit fails to state a claim on which relief can be granted.

### Industrial Progress Award Program

The James F. Lincoln Arc Welding Foundation has announced a 2½-year program of scientific study for improving design, manufacture, fabrication, construction, and maintenance of all types of machines, building, structures and products which will culminate on June 1, 1942, in the payment of \$200,000 in awards, ranging from \$13,700 for first prize, down to \$100. Locomotives, freight cars, passenger cars, and locomotive and car parts are in Classification C, Divisions C-1 to C-4, inclusive.

Inquiries for further information concerning the program should be addressed to the Secretary, The James F. Lincoln Arc Welding Foundation, Cleveland, Ohio.

### Status of National Carloading

Following its decision in the case involving the status of Acme Fast Freight, Inc., the Interstate Commerce Commission, Division 5, has found that the National Carloading Corporation, forwarded affiliate of the so-called Van Sweringen lines, is neither a common nor contract carrier by motor vehicle under the provisions of the

Motor Carrier Act. The application involved in the proceeding (No. MC-40639) had been filed on February 10, 1936, by National on behalf of itself and as lessee of G. W. Sheldon & Co. and Judson Freight Forwarding Co., of New York; it sought authority to operate as a motor carrier of general commodities "between all points in the United States."

### E. S. Harkness Dies At 66

Edward S. Harkness, who inherited large holdings of railroad securities from his father, S. V. Harkness, one of John D. Rockefeller's early partners, died in New York on January 29 at the age of 66. At the time of his death, Mr. Harkness was a director of the Southern Pacific and a member of the executive committee of the New York Central and a director of that road and a group of its subsidiaries. He has also served as a director of the Chicago, Milwaukee, St. Paul & Pacific. Noted for his extensive philanthropies, Mr. Harkness did not forget the members of the industry in which he held interest; he aided in the institution of many benefits for railroad employees, including a gift of \$600,000 for the founding of the Southern Pacific Railroad Employees' Hospital.

### Tie-Up With Railroad Brings Denial of Truck-Line Petition

Because its capital stock is owned by the same person (D. W. Thomas), who owns the capital stock of the Chesapeake Western Railway, the Interstate Commerce Commission, Division 4, has denied the application of C. W. Motor Lines, Inc., of Harrisonburg, Va., for authority to purchase the operating rights and property of the Motor Transport Corporation of Richmond, Va. The adverse decision turned upon the commission's finding that sufficient evidence had not been adduced to meet the requirements of the Motor Carrier Act's section 213, which stipulates that in transactions involving a railroad or a railroad affiliate there must be a showing that the railroad, among other things, can use the acquired rights "to public advantage in its operations."

### Minority Bondholders Win Against Lehigh In Suit

What may prove to be at least a minor obstacle to readjustment of railroad securities under the Chandler Act, should it become a legal precedent, is a judgment for \$64,567 awarded to minority bondholders against the Lehigh Valley confirmed by the Appellate division of the New York State Supreme Court in a 4-to-1 decision dated January 26. The judgment was in answer to suits entered by holders of 64 \$1,000 bonds of the Pennsylvania & New York Canal & Railroad of 1888, which the Lehigh Valley assumed as a guaranteed obligation. The plaintiffs objected in their claim to efforts of the road to extend the maturity date of the bonds for ten years from April 1, 1939, and to default of interest.

Counsel for the Lehigh Valley contended that the road is seeking to effect a voluntary plan of reorganization to avoid bankruptcy proceedings and that the actions of

the non-assenting holders in the case threaten the position of the 89 per cent of the road's bondholders who have assented to the plan of maturity extension and interest modification. He expected to appeal the decision.

(The Lehigh Valley filed a petition with the United States District Court at Philadelphia, Pa., on August 8, 1939, to adjust its capital structure under the Chandler Act. At that time the court issued an injunction restraining all suits and actions against the company during the proceedings.)

### Freight Car Loadings

Loading of revenue freight for the week ended January 27 totaled 649,488 cars, the Association of American Railroads announced on February 1. This was an increase of 3,666 cars, or 0.6 of one per cent, above the preceding week, an increase of 59,029 cars, or 10 per cent, above the corresponding week in 1939, and an increase of 96,312 cars, or 17.4 per cent, over the same week in 1938.

As reported in last week's issue, the revenue freight car loadings for the week ended January 20 totaled 645,822 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

#### Revenue Freight Car Loadings

For Week Ended Saturday, January 20, 1940			
Districts	1940	1939	1938
Eastern .....	143,128	133,105	124,201
Allegheny .....	137,371	112,126	103,832
Poconontas .....	46,394	39,090	39,244
Southern .....	100,765	91,948	91,362
Northwestern .....	74,827	69,864	68,796
Central Western .....	97,114	94,706	93,637
Southwestern .....	46,223	45,817	49,161
<b>Total Western Districts</b> .....	<b>218,164</b>	<b>210,387</b>	<b>211,594</b>
<b>Total All Roads</b> .....	<b>645,822</b>	<b>586,656</b>	<b>570,233</b>
Commodities			
Grain and grain products .....	28,089	33,031	36,096
Live stock .....	12,484	13,833	15,579
Coal .....	158,672	127,625	125,097
Coke .....	12,238	7,663	6,720
Forest products .....	30,660	27,244	27,380
Ore .....	10,052	8,964	7,158
Merchandise l.c.l. .....	142,919	146,591	145,526
Miscellaneous .....	250,708	221,705	206,777
January 20 .....	645,822	586,656	570,233
January 13 .....	667,713	582,244	580,740
January 6 .....	592,392	529,371	552,568
December 30 .....	.....	550,270	499,455
December 23 .....	.....	654,817	574,198

Cumulative Total,  
3 Weeks .... 1,905,927 1,698,271 1,703,541

In Canada.—Carloadings for the week ended January 20 totaled 49,416, an increase of 2,841 over the preceding week and 7,629 over the comparable 1939 week, according to the summary of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Jan. 20, 1940 .....	49,416	23,603
Jan. 13, 1940 .....	46,575	24,425
Jan. 6, 1940 .....	38,858	21,300
Jan. 21, 1939 .....	41,787	21,505
Cumulative Totals for Canada:		
Jan. 20, 1940 .....	134,849	69,328
Jan. 21, 1939 .....	118,026	62,628
Jan. 22, 1938 .....	135,299	67,150

### Grade Crossing Accident Fatalities

Fatalities resulting from highway-railroad grade crossing accidents in the first ten months of 1939 totaled 1,097, a decrease

of 62 compared with the same period in 1938, according to the Safety Section of the Association of American Railroads. Persons injured during the first ten months of 1939 totaled 3,020, compared with 3,081 in the same period the preceding year. Accidents at highway-railroad grade crossings in the first ten months of 1939 totaled 2,631, a decrease of 38 compared with the same period in 1938.

Fatalities in October, 1939, totaled 137, a decrease of 13 compared with October, 1938. Persons injured in highway-railroad grade crossing accidents in October, 1939, totaled 387, an increase of 12 compared with October the preceding year. In October, 1939, there were 357 accidents, an increase of 28 compared with the same month the year before.

### Motion to Dismiss Mart Case Overruled

A motion to dismiss the Interstate Commerce Commission's suit against the Union Pacific, the City of Kansas City, Kan., and 30 other defendants which seeks an injunction to restrain the continuance of alleged violations of the Elkins Act in the operation of the new Kansas City, Kan. food terminal was overruled by the federal district court at Kansas City, Mo., on January 29. The motion to dismiss had been brought by the city attorney for Kansas City, Kan., on the grounds that the federal court of the Western Missouri district had no jurisdiction in a matter that originated in Kansas. After overruling the motion, the court allowed attorneys for Kansas City, Mo.; the Chicago, Burlington & Quincy; the Atchison, Topeka & Santa Fe; the Missouri Pacific and the Chicago, Rock Island & Pacific, party plaintiffs, to amend the original complaint filed by the I. C. C. to make it more specific and include acts which allegedly showed that in offering concessions to Kansas City, Mo. produce dealers to move to the new terminal, the defendants did things that were interstate in character.

### December Truck Loadings 13 Per Cent Above 1938

December, 1939, was the second successive month in which the volume of freight transported by motor truck decreased below the previous month, although it continued "far above" the comparable month of the previous year, according to the monthly survey of American Trucking Associations, Inc. The December tonnage was 904,970 tons, down 11.4 per cent from November's 1,020,975, but up 13.1 per cent from December, 1938's 799,808 tons; and the A. T. A. index figure, based on the 1936 monthly average as 100 stood at 121.24 in December as compared with 144.1 in November and 107.02 in December, 1938.

The survey was based on comparable reports of 201 carriers from 37 states. In their reports, the carriers indicated the seasonal decline coupled with continued labor difficulties at their customers' plants were largely responsible for the December drop in loadings. General merchandise, accounting for 75 per cent of the total tonnage reported for December, decreased 13.8 per cent below November but was 16.1 per cent above December, 1938.

Petroleum products, which represented slightly less than 10 per cent of the total tonnage reported, dropped only 0.5 per cent under November's loadings, but increased 0.7 per cent over December, 1938.

The only increase over the previous month's tonnage was reported by carriers transporting automobiles. Movement of new automobiles and trucks in December was 13.7 per cent above November, 31.1 per cent above December, 1938. Resumption of work in the Chrysler plants figured largely in these reported increases. Iron and steel, representing slightly more than five per cent of the total reported tonnage, decreased 9.7 per cent under November and 10.2 per cent under 1938.

Four per cent of the total tonnage reported was miscellaneous commodities. While carriers in this group reported a decrease in tonnage of 18.4 per cent below November, the amount represented an increase of 9.3 per cent over December, 1938.

### Port Freight Forwarders Urged to Aid Railroads in Ship Loading

Following a conference of steamship, freight forwarders and railroad representatives, arranged by George C. Randall, recently appointed manager of port traffic by the Association of American Railroads, the New York Freight Forwarders & Brokers Association has issued a bulletin urging co-operation by its members with the railroads and steamship lines as a means of reducing delay and congestion in the Port of New York. It is pointed out that an important cause of delay is the holding of lighters for long periods of time at piers before they are unloaded; another is the lack of concentrated and unified control which makes for many separate lighterage movements by railroads for the loading of the same steamships.

To meet these conditions, the bulletin suggests that when forwarders are moving large cargoes of more than one carload booked for the same steamship, they recommend to shippers a single routing over one railroad, thus eliminating separate lighterage deliveries. It is also recommended that forwarders check carload shipments coming from various points destined for the same steamship and so advise the railroad that lighterage movement may be consolidated.

It is believed that such co-operation among all parties will end lighterage congestion which has been especially bad in the port in recent weeks.

### U. S. Supreme Court Decisions

The last hurdle for the Baltimore & Ohio's debt adjustment plan was cleared on January 29 when the United States Supreme Court denied a petition of a group of the road's bondholders who were seeking to contest the legality of the plan. The plan has already been approved by the Interstate Commerce Commission and a United States statutory three-judge court in Baltimore, Md.

In the case of the Illinois Central v. Minnesota the Court sustained a judgment of the Supreme Court of Minnesota which had upheld the validity of a Minnesota gross earnings tax on railroads which sought to tax the net credit balance of per



diem collected in Minnesota. The court, in a decision by Mr. Justice Douglas, rejected the claim of the carrier that it was denied equal protection of the laws and that the tax was contrary to the due process clause of the Fourteenth Amendment.

In another case of *Carpenter v. Wabash et al.*, the Court reversed the judgment of the United States Circuit Court of Appeals for the Eighth Circuit and remanded the case to the United States District Court. In this case the plaintiff, an employee of the Wabash, obtained a judgment for personal injuries in February, 1931. Receivers were appointed for the road under equity receivership in December, 1931. A special master allowed the claim of the employee as unsecured without lien or priority. The Supreme Court held that as the law was then written, this action was correct, but went on to hold that, by reason of the enactment of section 77 (n) of the Bankruptcy Act, on August 11, 1939, specifying that personal injury claims shall be preferred and paid out of the assets of the company in bankruptcy or receivership as operating expenses, the petitioner was entitled to priority. The order of the Supreme Court directs the District Court to allow the employee's claim.

In the case of *George Allison & Co., Inc., v. Interstate Commerce Commission*, the Court declined to review a decision of the United States Court of Appeals for the District of Columbia which had affirmed a judgment of the District Court of the United States for the District of Columbia denying a petition for a writ of mandamus filed by shippers to compel the commission to award damages in accordance with its findings in a rate proceeding. The decision of the Court of Appeals for the District of Columbia upheld the commission's discretionary power in awarding reparations.

The Court also sustained a decision of a three-judge United States District Court which had held that the Columbia Terminals Company of St. Louis, Mo., was subject to regulation by the Missouri Public Service Commission. The Terminals Company is the transfer agency by which freight is interchanged between East St. Louis, Ill., and St. Louis, Mo., across the Mississippi River.

### **Tough Winter on Inland Waterway Operations; Freight Embargoed**

Suspension of river barge service because of ice in the channels, ordinarily confined to the Northern states, has been extended below Vicksburg, on the Mississippi River, according to notices filed by the barge lines with the Car Service Division of the Association of American Railroads, it was announced on January 31.

As a result of these notices, railroads are not accepting freight for transfer to barge lines on the Mississippi, Ohio, Missouri, and Illinois rivers, except at New Orleans and Baton Rouge. At these points, the barge lines will receive freight, but subject to delay.

"In the Ohio and the Lower Mississippi Rivers, ice conditions are not usually so severe as to require a suspension of operations, as is the case at the beginning of winter on the Upper Mississippi, the Missouri and the Illinois Rivers and the Great

Lakes," the A. A. R. said. "This year, however, the prolonged spell of intensely cold weather has filled the lower rivers with floating ice to such a degree that not even the efforts of government engineers to keep the channels open with powerful steel-hull boats have enabled navigation to continue. Numerous towboats and barges, some of them loaded with freight, are tied up until more moderate weather opens up the channels, it is reported from river points.

"Because of the freeze-up in the Ohio and Lower Mississippi Rivers, a large volume of gasoline, steel, molasses and miscellaneous freight which customarily moves by water is being shipped by rail, according to reports to the Car Service Division. Approximately 1,000 carloads of coal a day, which ordinarily move by river into the Pittsburgh and Youngstown industrial areas, are now being handled by rail because of the freezing of the Ohio River and its tributaries.

"The severe cold spell in the South has resulted in some shortage of coal in such cities as Birmingham where a considerable part of the local supply is brought in from the mines by truck, according to a statement by I. W. Rouzer, president of the Alabama Mining Institute. In general, however, with a mine production greater than in any January for the past nine years, the movement of coal by railroad from Southern mines has been steady and uninterrupted."

Meanwhile the Interstate Commerce Commission has issued Service Order No. 66 to permit railroads to meet conditions wherein ice floes in the Mississippi have tied up the car ferry operations of the Natchez & Southern between Natchez, Miss. and Vidalia, La. The order authorizes the Mississippi Central and the Louisiana & Arkansas to forward traffic now in their possession or in course of transportation, and routed through Natchez, via the Yazoo & Mississippi Valley between Roxie, Miss. on the one hand and Sibley, La. or Shreveport, on the other hand; and the Missouri Pacific to divert traffic routed via Vidalia and Natchez, to the Yazoo & Mississippi Valley at Monroe, La., Rayville or Tallulah, without regard to the routing thereof made by shippers or by carriers from which the traffic is received, or to the ownership of cars.

### **New Orleans Switching Charges**

The Interstate Commerce Commission, Division 2, has found unreasonable and discriminatory proposed increased switching charges of the New Orleans Public Belt. In view of the fact that the foregoing will leave the switching charges as they now are, the commission discontinued that phase of the proceeding arising out of the proposal of line-haul carriers to limit the amount of their absorptions of switching charges at New Orleans. A third finding was that the present switching charges of the New Orleans Public Belt and provisions restricting their absorption, in connection with domestic traffic, by line-haul carriers are not unreasonable or otherwise unlawful.

The title case was docketed as *I. & S. No. 4366*, while the decision, written by

Commissioner Splawn, embraced also No. 27789, *New Orleans Joint Traffic Bureau vs. Abilene & Southern Railway Company, et al.*

### **More Advice for S. 2009 Conferees**

Conferees on S. 2009, the omnibus transportation bill, were scheduled to get to work on reconciling Senate and House versions of the measure on Thursday of this week. Meanwhile they have received memoranda from interested parties in addition to those submitted on behalf of the railroads and the committee-of-six, as noted in the *Railway Age* of January 20.

On Monday Chairman Eastman of the Interstate Commerce Commission transmitted to Chairman Wheeler and Lea of the Senate and House committees on interstate commerce, respectively, memoranda of comment on the detailed provisions of the two bills. It was indicated on Wednesday night that this material prepared on behalf of the I. C. C. would be made public on Thursday.

Meanwhile the National Industrial Traffic League's special committee on the railroad situation has sent the conferees a memorandum setting forth the League's opposition to codification of the Interstate Commerce Act as proposed in the Senate bill, and its objections to the regulation of water carriers. In addition to these general positions which the memorandum undertakes at some length to support, the League's committee comments on various specific provisions of the two bills.

Another letter has been received by the conferees from the Freight Consolidators & Forwarders Institute which expressed the view that forwarders should be brought under I. C. C. regulation. However, they have some doubt as to the effectiveness of bringing them in as does the House bill by adding them to the list of common carriers subject to Part I of the Interstate Commerce Act; and rather prefer the language of H. R. 4827, the forwarder-regulation bill which was introduced sometime ago by Chairman Lea, but which has not been acted upon by the House committee.

The aforementioned memorandum of the N. I. T. League suggested that it might be best to defer forwarder regulation until a study of the question has been made. Such a study by a sub-committee of the Senate committee on interstate commerce, as provided for in Senate Resolution 146, is scheduled to get underway when the committee's work on S. 2009 is completed.

The aforementioned report of the Interstate Commerce Commission was made public on Thursday morning, and it turned out to be a 149-page document which discussed each section of the Senate bill, commented upon corresponding provisions of the house bill and followed through with a section by section review of the House bill. Each change proposed by the Commission was classified as important, desirable or debatable; and the general suggestion was that under present conditions it would be better to adopt the form of the House bill, "confining it to matters of principal importance."

In thus favoring the House bill's uncoded form, the Commission had a good word to say for codification and for the

job done in that connection "under great difficulties" in the Senate bill: but it believes that "a still better product is possible" and that such a job should contemplate a preliminary report upon which all interested parties could be heard.

Among other things the Commission suggested elimination of the so-called Harrington and Wadsworth amendments which were put in on the floor of the house. The former, inserted at the behest of the Brotherhood of Railroad Trainmen, would prevent the Commission from approving any consolidation which resulted in the displacement of any employee or impairment of his employment rights. It is the Commission's view that protection for labor affected by mergers should be provided under some such plan as that embodied in the so-called "Washington Agreement" which is understood to be satisfactory to the Railway Labor Executives Association.

The Wadsworth amendment and the similar provision put into the Senate bill by Senator Miller of Arkansas, stipulates that the Commission must not prevent a carrier from reducing rates provided the resultant charge would cover all costs including overhead. This has been opposed by the railroads on the ground that it would give an unfair advantage to water carriers who would not be required to consider subsidies in calculating their costs.

#### Railroads Ask Revocation of C. C. C. Order

Attorneys for the respondent carriers have asked the Interstate Commerce Commission to reconsider and revoke its order requiring the cancellation of suspended schedules proposing reduced passenger fares for Civilian Conservation Corps enrollees on furlough or leave at their own expense. The commission had several times postponed the effective date of the order, the last postponement being until April 1, 1940.

Specifically, the carriers want the commission to (a) reconsider its prior findings, reports and orders in the case, (b) to find, upon reconsideration, that respondents lawfully may give free transportation or reduced fares to indigent enrollees of the C. C. C., and other indigents, without publication of tariffs, and (c) to enter an order vacating and setting aside all prior findings and orders in the case and discontinuing the present proceeding.

In their petition the respondents state that, "This proceeding was misconceived and should never have been instituted. For that misstep—the submission of the original tariff—respondents must assume responsibility. In retrospect, it appears that, instead of attempting a compromise, by publication of a tariff which they then thought and still think unnecessary, respondents should have continued their long-established practice of granting free transportation or reduced fares to indigent persons (including enrollees of the Corps) and asked the commission to institute a civil suit to enjoin that action."

Briefly, the issues involved in this controversy are these: The steam railroads had been hauling the enrollees from their C. C. C. camps to their homes for return visits at a one-cent-a-mile rate, the same as

the carriers charge the government for carrying them to their camps. The motor carriers asked the commission if it would be lawful for them to offer similar rates. W. V. Hardie, director of the commission's Bureau of Traffic, held that such rates were unlawful unless appropriate tariffs were filed with the I. C. C.

As a result of this ruling, the railroads filed tariffs with the commission, which were later suspended on the ground that such rates could not be offered to enrollees and not to other indigents. The railroads now take the position that they should have refused to file the tariffs and should have continued to give the low rate and permitted the commission to go into court to seek to enjoin them from the practice. Then, the issue would have been settled in court in a civil suit. This is what they are now asking to do when they seek from the commission a dismissal of the proceedings.

#### I. C. C. Approves L. & N. Bond Issue After "False" Protest

After calling a public hearing at the request of two small Louisville & Nashville stockholders who had first protested against the refusal of the road to submit its \$60,000,000 refunding bond issue to competitive bidding and then had withdrawn it, Division 4 of the Interstate Commerce Commission, on the following day, reversed itself by canceling the hearing and granting the road's petition to sell the bonds privately to a syndicate headed by Morgan Stanley & Co., of New York City. It was later revealed in letters filed with the commission that the two stockholders, Julia Schuhmann Imorde and Mayne Schuhmann, who held 23 shares out of 1,170,000 outstanding, had been induced to sign the petition asking for a hearing on the basis of the alleged misleading statements by a Louisville lawyer, identified as Thomas C. Fisher.

At the same time that the commission made public the protest and withdrawal of the two stockholders, it also made public a petition from the L. & N. asking for a cancellation of the hearing on the ground that the two women had been misinformed as to the facts in the case when they signed the protest.

Recently, former Senator Robert Bulkley of Ohio, representing Otis & Co., of Cleveland and Halsey, Stuart & Co., of Chicago, called upon the commission to ask it to require competitive bidding in bond issues of this type. Also, within the last fortnight the commission received from the Public Service Commission of Ohio an anonymous document purporting to show that the sale of the bonds privately to Morgan Stanley & Co., would be detrimental to the best interests of the road. The commission made no comment on the letter.

The petition of the L. & N. stated that the time for intervening protests had expired on January 12, 1940, but that on January 21, opponents of the plan induced two stockholders holding 23 out of 1,170,000 shares to intervene on the strength of representations made by Mr. Fisher that the intervention would be in the interests of the stockholders and that other stock-

holders had also intervened. After the withdrawal of the petition by the two women, the railroad asked that the hearing be canceled. It was further pointed out that the hearing had been set for February 5, which was five days after the date of the contract with Morgan Stanley & Co. would have expired, thus causing the company considerable inconvenience and delay in marketing its securities.

The authority granted by Division 4 permits the company (1) to extend the maturity date of \$60,000,000 of unified 50-year four per cent gold mortgage bonds, due July 1, 1940, \$30,000,000 thereof to January 1, 1940, with the rate of interest thereon reduced to 3½ per cent from January 1, 1940, and \$30,000,000 to January 1, 1960, with interest at the existing rate of four per cent; and (2) to issue \$60,000,000 of collateral trust bonds, \$30,000,000 thereof to be 10-year collateral trust 3½ per cent bonds, due January 1, 1950, and \$30,000,000 to be 20-year collateral trust four per cent bonds, due January 1, 1960; the 10-year bonds to be sold at 99½ and the 20-year bonds at 98½, with accrued interest in each case.

The plan also contemplates that the company will pay in cash and cancel \$9,243,000 of the outstanding unified bonds.

#### Naval Stores Case Decided

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burden upon other traffic. It is manifest, however, that when, because of an insufficient volume of traffic or for any other reason, competition is carried to the point where the service clearly is being performed at a loss, public interest is not being served. Such competition tends to undermine the financial stability of the carriers and thereby to lessen their ability to furnish adequate and efficient service. It is to prevent such competition that the commission has been given the authority to prescribe reasonable minimum rates. This authority should, however, be exercised with care.

"The record in this proceeding was made for the most part early in 1938. We are not advised as to what, if any, transportation changes have taken place in the interim. That keen competition exists between the rail and truck carriers for this traffic is not questioned. On the record before us we are convinced that the proposed rail rates will be, and that the present motor truck rates are, compensatory and otherwise lawful . . ."

Chairman Eastman's concurring expression gets under way with an assertion that the results of the majority decision "are sound, so far as they go." And while in his judgment they should have gone farther, he nevertheless thought that "some decision of the case has become the matter of most pressing importance, and further developments can be left to time and experience." In the chairman's opinion the case presented issues of a type "which promise to increase continually in volume and importance." He found that "something like a rate war" had set in, its



extent being indicated by the fact that a few years ago the railroad rates on rosin and pine oil from Hattiesburg to Gulfport were 13 and 20 cents, respectively; the corresponding rates carried in the suspended tariffs were the aforementioned six and nine cents. Thus it seemed highly desirable to Mr. Eastman that the comparative cost of rail and truck transportation should have been determined. In that connection it is his opinion that the "experienced statisticians" of the commission's staff did "a thorough and excellent piece of work" on the cost study which "is given very cursory consideration in the report which has been adopted."

Further because the Bureau's cost-finding methods were not explained or discussed, "as they should have been," the chairman sets up a table showing the results of them. There it appears that the rail costs on the traffic involved ranged from 4.52 cents to 7.77 cents if no allowance were made for return on investment, and from 6.11 cents to 10.32 cents, including a return. Comparable truck costs ranged, respectively, from 7.38 cents to 15.39 cents and from 7.4 cents to 15.65 cents. In Mr. Eastman's judgment the rail costs shown in his table "have been liberally estimated, and the truck costs are not overstated, except, perhaps those shown for the Coronett Line." (The latter, now McDonough Motor Express, Inc., operates only between Laurel and Mobile.)

"To my mind," Chairman Eastman goes on, "the costs which do not include a return on value are of more significance than those which do, because they indicate the extent to which reductions could be carried, in the event of economic necessity without danger of even computed financial loss." Later in discussing what he conceived to be the failure of the commission to do its full duty, the chairman conceded that if the majority had gone further "a very difficult phase of regulation would be involved, and one which has as yet been inadequately explored." Thus his aforementioned hope that his expression would produce reactions which might be helpful in future cases.

"There are widely different views as to what are minimum reasonable rates and as to the extent of our authority to fix them," Mr. Eastman continued. "In a recent argument in another case, for example, counsel for the railroads contended, if I understood him correctly, that we should never fix minimum rates in excess of the out-of-pocket expense of handling the traffic in question, and intimated that the prescription of such rates on any higher level could be successfully challenged in court on constitutional grounds. Others contend that we should not fix minimum rates which are in excess of the full allocated cost of the service."

"There are, I believe, grounds for holding that we were given the minimum-rate power for the purpose of preventing destructive competition, of promoting within reason the use, to the extent that our jurisdiction permits, of the different modes of transportation for the services to which they are economically best fitted and discouraging their use under reverse conditions, and of stabilizing and improving the financial

conditions generally prevailing within the transportation industry. In fact I can think of no other good reason for granting us this power. Holding this belief, I would exercise the power in whatever ways are shown by the evidence to be necessary and appropriate to accomplish this underlying purpose. No fixed formula will fit every case, and just as we have found that there are flexible limits of judgment in the determination of maximum reasonable rates, so we shall find that there are similar limits in the determination of minimum reasonable rates, dependent upon the facts of record. In some situations, I apprehend, there may be little, if any, difference between the maximum and minimum, while in others there may be a comparatively wide difference. . . . If we are to promote the use of the mode of transportation which is economically best fitted for the service in question, we ought not to shy away in clear cases from prescribing the differences in rates which the facts justify and which will accomplish that result."

#### Peoria & Eastern to Reorganize Under Chandler Act

The Peoria & Eastern, a leased line of the New York Central System, has filed with the Interstate Commerce Commission a plan of adjustment under the Chandler Act which would provide for the maturity on April 1 of its \$8,876,000 of outstanding first consolidated mortgage four per cent bonds. The plan, as submitted to the commission, provides for the payment of \$450 in cash on account of each \$1,000 bond and the extension of the maturity of the balance for 20 years to April 1, 1960, at an unchanged interest rate of four per cent.

The necessary funds to make the partial cash payment will be received from the Cleveland, Cincinnati, Chicago & St. Louis, which operates the Peoria & Eastern under contract and guarantees interest but not the principal of the maturing bonds. The Big Four is leased to the New York Central System. On April 1 the Big Four will pay off in cash its maturing \$5,000,000 purchase money lien on the Springfield Division. This lien, the plan points out, is owned by the Peoria & Eastern and forms part of the security of the first consolidated 4s which also mature on April 1.

Under the proposed plan the Peoria & Eastern will use \$846,000 of the \$5,000,000 to pay off in full underlying preferred bonds of the Indiana, Bloomington & Western, similarly maturing on April 1. An additional \$384,500 will be used to pay off that part of a Peoria & Eastern \$500,000 promissory note held by the Securities Corporation of the New York Central, similarly maturing on April 1. This note is secured by \$500,000 of Peoria & Eastern first consolidated 4s. The Securities Corporation has agreed to accept \$115,500 of the extended consolidated 4s for the balance of the note.

Of the balance of \$3,769,500, \$3,769,200 will be applied to the remaining \$8,376,000 par value of P. & E. first consolidated 4s outstanding, at the rate of \$450 for each \$1,000 bond, reducing the unpaid principal

of the bonds to \$4,722,300. The sum of \$300 will be used for the purchase by the trustee in the open market of extended first consolidated bonds.

The plan further provides that the date of maturity of the \$4,722,300 unpaid principal (including the \$115,000 assigned to the Securities Corporation) is to be extended, without impairment of the lien, from April 1, 1940, to April 1, 1960, at the present interest rate of four per cent annually. The Big Four, with the approval of the New York Central, has agreed to pay the interest on the extended bonds.

It is also provided that the P. & E., upon acceptance of the plan by the holders of at least 25 per cent of the first consolidated bonds, will apply to the commission for an order authorizing the modification of the bonds, and upon receipt of the order, assents having been obtained from holders of more than 66 2/3 per cent of the bonds, will file a petition with the federal court. Approval of holders of 75 per cent of the bonds is necessary to make the plan effective.

#### Norris Warns of Propaganda

(Continued from page 254)

we have to pay taxes to the state of Georgia, to Fulton county and to the city of Atlanta. Or to any of the 14 states and 304 counties, or to the thousands of cities and towns that we serve. The Southern railway owns property in all these states and cities and counties. The road should pay taxes, like all the rest of the property owners, you say. We do. We pay taxes on all of our property. We pay taxes on our income—when we have any income. And we pay taxes in Georgia on the mileage of our cars and locomotives that move over our own right-of-way, not over a public highway. If these other things are 'trade barriers,' what would you call taxes like ours?

"Now suppose we got the bright idea that we could save the rental and taxes for our city ticket office in Atlanta, by fixing up a huge office on wheels, to be parked every day as near as we could get to Atlanta's famous Five Points. Then suppose we raised a great cry of 'persecution' every time the property owners and merchants around there protested. Suppose we waited 'trade barriers' every time the tax authorities sent us a bill for the same kind of taxes every other Atlanta merchant pays. Suppose we hired propagandists to carry our case to the people, every time we got a ticket for parking our office too long. Suppose we tried to make you believe that because this railroad's legal home is in Virginia, you should let us do whatever we please in your state or city—use your streets without paying for the privilege—thumb our nose at the laws and regulations you have to observe, just because we pay our taxes in Virginia!"

With a final warning to his hearers against falling for "these sob stories about trade barriers," Mr. Norris went on to tilt with the "national defense" boys. Said he:

"You will hear a lot this year about expenditures on highways and super highways. You will find them draped gracefully on the convenient peg of national defense. You will be told that it is patriotic to pour more billions of dollars into all the forms of transport—except the one form for which there is no substitute, if this nation should ever be called upon to defend itself."

Expanding on this theme, he reviewed events following the outbreak of the European war when "one of the first questions we asked was about our railroads." During this period of "brass tacks" not much was said about truck transportation; inland waterway transportation was entirely overlooked and air transport dissolved into a combat arm. Railroad transportation was the one discussed and put to the test. The railroads did the job successfully but "when the shock that produced such clear thinking wore off, we once more found the propaganda boys stretching the excuse of 'national defense' to cover the proposed expenditure of more billions of tax dollars for highways and super highways over which the railroads' competitors can roar downhill or crawl uphill. **More tax-eating transportation to kill more tax-paying transportation.** Then, if emergencies do come, there will be consternation over any inadequacy of rail transportation."

### \$187,260 for Making Sure I. C. C. Keeps Faith with Farmers

Watching freight rates on farm products will have cost the taxpayers \$187,260 during the fiscal year ending next June 30 and a like amount is sought by interested agencies of the Department of Agriculture for the 1941 fiscal year. The requested appropriation for fiscal 1941 was allowed by the House committee on appropriations in the Agricultural Department Appropriation bill reported this week; and at the same time the committee made public testimony taken at hearings on the bill before one of its sub-committees.

Statements in justification of the estimates for the Department's work in connection with adjustments in freight rates for farm products were submitted to the sub-committee by Howard R. Tolley, chief of the Bureau of Agricultural Economics, who, along with Charles B. Bowling, chief of the Transportation Section, Division of Marketing and Marketing Agreements, also testified in response to questions from sub-committee members. The whole process looked to Representative Lambertson, Republican of Kansas, like "a set-up of one government group seeing that the other government group is square and honest." He explained that "the Interstate Commerce Commission are supposed to represent us—it is just like the watcher watching the watcher."

Meanwhile Dr. Tolley's statement had contended that in the matter of freight rates "there is no important crop which will not require some of our attention." Among other specific matters he listed the Department's expectation that it will be involved in requests to participate in future investigation and suspension proceedings; the number of such cases is impossible to anticipate because their instigation "de-

pends upon the extent to which adverse selfish interests may succeed in obtaining suspension of reduced charges favorable to agriculture as well as to the extent to which the Department and agricultural producers may be successful in obtaining suspension of proposed increase in charges filed by the railroad." Also, agricultural producers have "a tremendous stake" in the pending I. C. C. investigations of class rates and classifications.

"In order to achieve a proper balance in the national economy between farm prices and income, on the one hand, and on nonagricultural prices and income, on the other," the statement continues, "the average level of freight rates must be as low as possible and must be flexible to conform to unsettling conditions arising from business-cycle fluctuations, shifts in foreign trade, uncertain growing conditions, and other factors largely beyond the control of farmers. It seems clear that the Department's study should be concerned with both the short-term and long-run aspects of transportation, with the definite objective of formulating policies designed to integrate more satisfactory transportation rates and charges into the needs not only of agriculture but of the entire economic organization."

In response to questioning, Dr. Tolley explained that \$100,000 of the appropriation sought would go to the Bureau of Agricultural Economics; \$72,000 to the Division of Marketing and Marketing Agreements; and \$14,000 to the Office of the Solicitor. Continuing, Dr. Tolley referred to post-1913 changes in freight rates on agricultural products, submitting in that connection index numbers and other data showing also a comparison of railway freight revenues from farm products with the wholesale value at destination. He was not prepared to say "just how rates might be made cheaper;" as transportation matters are handled, it "is not easy at all—you are confronted with the law of reasonable return to the carriers, and with Supreme Court decisions, and so forth."

"Why not a law providing reasonable return to the farmer as well as a reasonable return to the railroad?" asked Subcommittee Chairman Cannon, Democrat of Missouri.

"I think if I were a member of Congress I would vote such a law," Dr. Tolley replied.

Remaining testimony of the latter and of Mr. Bowling related to the results of the Department's intervention before the I. C. C. under the recently-enacted law authorizing the Secretary of Agriculture to take such action. The Department has not yet exercised its power to present original complaints to the I. C. C.; and Representative Tarver, Democrat of Georgia, wanted to know if such action were contemplated in the coming year. "Perhaps we will," Mr. Bowling replied, continuing to discuss with sub-committee members his ideas on present rate adjustments on cotton and wool.

### Delivery of Cars to Seatrains

The Interstate Commerce Commission has reopened for further hearing the proceeding involving terms and conditions

under which railroads participating in through routes with Seatrains Lines, Inc., should be required to interchange their cars with that water line. The majority report expressed the view that "the period of time during which and the manner in which Seatrains should pay for the use of cars, the amount of compensation it should pay and any other condition which the evidence adduced shows would be an appropriate condition to attach to an order requiring defendants to interchange their cars with Seatrains are questions here in issue."

Commissioner Caskie in a brief dissenting expression noted his disagreement with the majority view that the commission has jurisdiction to compel rail carriers to interchange their cars with Seatrains. Commissioner Alldredge agreed with Mr. Caskie while the dissent of Commissioner Mahaffie was noted.

### Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

- AIR BRAKE ASSOCIATION.—R. P. Ives, 350 Fifth Ave., New York, N. Y.
- ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.
- AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, F. T. R. M. & O. R. R., 327 S. La Salle St., Chicago, Ill.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, 1431 Railway Exchange Bldg., St. Louis, Mo.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Union Station, St. Louis, Mo. Annual meeting, June 4-6, 1940, Hotel Stevens, Chicago, Ill.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.
- AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill. Annual meeting, October 15-17, 1940, Hotel Stevens, Chicago, Ill.
- AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York, N. Y.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—J. M. Hurley, N. Y. O. & W. Ry., Middletown, N. Y.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.
- AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—M. W. Jones, Baltimore & Ohio R. R., 1105 B. & O. R. R. Bldg., Baltimore, Md.
- AMERICAN RAILWAY TOOL FOREMEN'S ASSOCIATION.—G. G. Malina, C., M., St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill.
- AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Hunt, Tower Bldg., Washington, D. C.
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y. Spring meeting, May 1-3, 1940, Hotel Bancroft, Worcester, Mass. Semi-annual meeting, June 17-20, 1940, Pfister Hotel, Milwaukee, Wis. Fall meeting, September 3-5, 1940, Davenport Hotel, Spokane, Wash. Annual meeting, December 2-6, 1940, New York, N. Y.
- Railroad Division.—Marion B. Richardson, 21 Hazel Ave., Livingston, N. J.
- AMERICAN TRANSIT ASSOCIATION.—Guy C. Hecker, 292 Madison Ave., New York, N. Y.
- AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C.
- ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington, D. C.
- Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.
- Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
- Operating Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Transportation Section.—L. R. Knott,



59 E. Van Buren St., Chicago, Ill.  
 Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y.  
 Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.  
 Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.  
 Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.  
 Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.  
 Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Annual meeting, September 24-26, 1940, Chateau Laurier, Ottawa, Ontario, Canada.  
 Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.  
 Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 12-14, 1940, Palmer House, Chicago, Ill.  
 Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.  
 Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y. Annual meeting, October 8-10, 1940, Wardman Park Hotel, Washington, D. C.  
 Mechanical Division.—V. R. Hawthorne, 59 E. Van Buren St., Chicago, Ill.  
 Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill.  
 Purchases and Stores Division.—W. J. Farrell, 30 Vesey St., New York, N. Y.  
 Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill.  
 Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington, D. C.  
 Car-Service Division.—E. W. Coughlin, Transportation Bldg., Washington, D. C.  
 Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.  
 Accounting Division.—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting, 1940, White Sulphur Springs, W. Va.  
 Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C.  
 Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.  
 ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, May 15-17, 1940, Providence Biltmore Hotel, Providence, R. I.  
 BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—W. S. Carlisle, National Lead Company, 900 W. 18th St., Chicago, Ill. Meets with American Railway Bridge and Building Association.  
 CANADIAN RAILWAY CLUB.—C. R. Crook, 4468 Oxford Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month except June, July and August, Windsor Hotel, Montreal, Que.  
 CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, Mo.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.  
 CAR DEPARTMENT OFFICERS' ASSOCIATION.—Frank Kartheiser, Chief Clerk, Mechanical Dept., C. B. & Q., Chicago, Ill.  
 CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 2514 W. 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.  
 CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.  
 EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—J. T. Bougher, 424 W. 33rd St. (11th floor), New York, N. Y.  
 INTERNATIONAL RAILWAY GENERAL FOREMEN'S ASSOCIATION (See Locomotive Maintenance Officers' Association).  
 INTERNATIONAL RAILWAY MASTER BLACKSMITHS' ASSOCIATION.—W. J. Mayer, Michigan Central R. R., Detroit, Mich.  
 LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—J. E. Goodwin, Shop Superintendent, Missouri Pacific R. R., No. Little Rock, (P. O. Little Rock), Ark.  
 MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeyer, 29 Parkwood St., Albany, N. Y. Annual meeting, October 21-24, 1940, Hotel Sherman, Chicago, Ill.  
 NATIONAL ASSOCIATION OF RAILROAD AND UTILI-

TIES COMMISSIONERS.—Clyde S. Bailey, New Post Office Bldg., Washington, D. C. Annual meeting, December 10-12, 1940, Miami Fla.

NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill. Exhibit in connection with A. R. E. A. Convention, March 11-14, 1940, International Amphitheatre, Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, and second Friday of each alternate month at Hotel Hayward, Los Angeles.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, 1255 Old Colony Bldg., Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone section of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 903 Syndicate Trust Bldg., St. Louis, Mo. Annual meeting, May 14-15, 1940, Brown Hotel, Louisville, Ky.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill. Annual meeting, September 10-12, 1940, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R., Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, O. & C. Company, 59 E. Van Buren St., Chicago, Ill. Meets with Roadmasters' and Maintenance of Way Association.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y.

WESTERN RAILWAY CLUB.—W. L. Fox (Executive Secretary), Room 822, 310 South Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

## Construction

ATCHISON, TOPEKA & SANTE FE.—A contract has been awarded Cocke & Braden, Amarillo, Tex., by the Texas Highway Department, for the construction of a single track bridge on the Panhandle & Sante Fe in Parmer county to provide an underpass for State Highway No. 86. The bridge will consist of three I-beam spans, one 44 ft. and two 41 ft. long, with a concrete slab floor and a ballast deck supported on reinforced concrete spread footing type piers and abutments. The railroad crosses the highway at an angle of 51

deg. and the bridge will provide a 28-ft. clear roadway width. The total cost of the project will be about \$33,000.

LONG ISLAND.—Work is now under way on the installation of a new streamlined Otis escalator leading from the Long Island concourse of Pennsylvania Station, New York, to 34th street. The new escalator is to be 3 ft. wide and capable of carrying 6,000 persons an hour; it will replace the old moving stairway. James Stewart & Co. have the general contract for the installation.

NORFOLK & WESTERN.—An improvement program to be carried out at Lambert Point, Va., includes a new 1,100-car capacity coal classification and storage yard and a new 200-car capacity car repair yard with modern buildings and other facilities. The total cost will be about \$500,000. The new classification yard will be on the site of the present car repair yard and will have 29 additional tracks, a total mileage of about 13 miles with a capacity of from 33 to 47 cars each. The tracks will be built parallel to the present classification yard and will be connected at both ends. The new car repair yard will have 10 tracks, aggregating about 4½ miles; a new 150 ton track scale and seven modern new buildings, including an oil house, paint house, air-brake house, office and locker room, storehouse, machine and smith shop, planing mill and lumber shed.

PENNSYLVANIA - READING SEASHORE LINES.—Separate bids will be received at the office of E. J. Lamneck, purchasing agent, Room 415, 15 N. 32nd street, Philadelphia, Pa., until 1 p.m., e.s.t., February 6, for furnishing certain equipment for the grade crossing eliminations at Absecon, N. J.

SOUTHERN.—This road has authorized the construction, with its own forces, of classification tracks at Inman Yard, Atlanta, Ga., at an estimated cost of \$65,000.

SOUTHERN PACIFIC.—The American Bridge Company, Pittsburgh, Pa., with a bid of \$2,588,354, was the low bidder for the construction, including the furnishing of labor and materials, of the superstructure of the Pit River bridge on the 30-mile relocation of the Southern Pacific and U. S. Highway 99 on the Central Valley project of the Bureau of Reclamation, north of Redding, Cal. The principal items of work on this project are: Furnishing and erecting 16,595 tons of structural steel; furnishing and placing 515 tons of cast steel; placing 650 tons of reinforcement bars; placing 5,500 cu. yd. of concrete in the highway floor and constructing the timber railroad deck, including walkways, hand rails, tracks, etc.

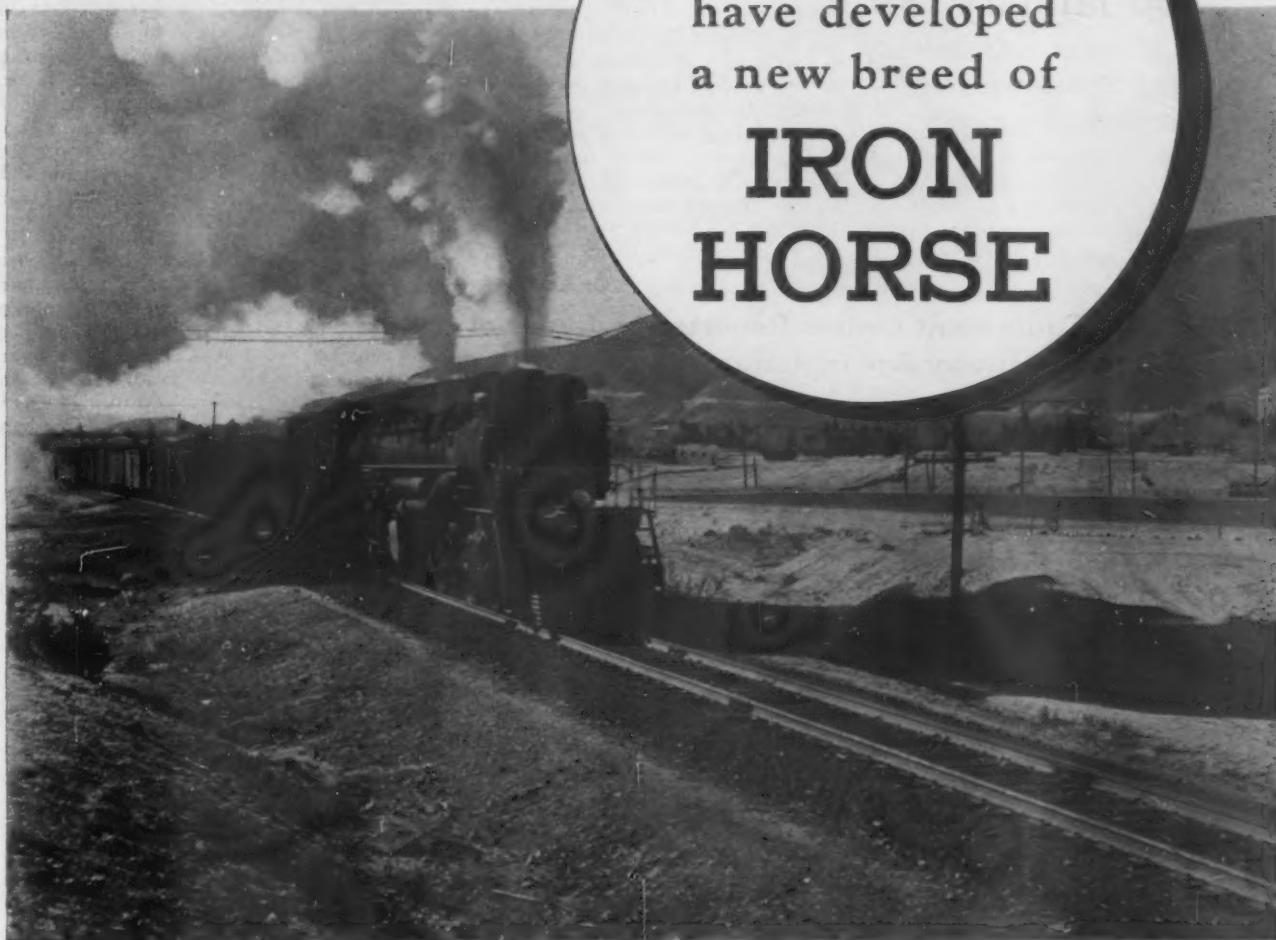
WHEELING & LAKE ERIE.—A contract amounting to approximately \$38,000 has been awarded the Railroad Water and Coal Handling Company, Chicago, for the construction, complete, of a new lime-soda water softening plant with a capacity of 75,000 gal. per hour, at Brewster, Ohio. The project will include the construction of a new steel water tank with a diameter of 46 ft. and a height of 60 ft.

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# Changing Conditions

have developed  
a new breed of

## IRON HORSE



Today's increasing passenger and freight traffic demands have brought about the development of a new type of steam power... The Super-Power Steam Locomotive.

Lima has pioneered in locomotives of this type. From the experimental A-1 high-speed freight locomotive of 1925 up to the new improved 2-8-8-4 Mallets, that have recently been delivered by Lima to the Southern Pacific, Lima-built Locomotives have proved the money-making abilities of new, super-power steam locomotives.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO



## Equipment and Supplies

### Equipment Orders Top January '39

Total of 28 locos., 209 freight cars and 5 passenger cars ordered during month

Equipment manufacturers and railroad shops in the United States received domestic orders for a total of 28 locomotives (24 steam and 4 Diesel-electric); 209 freight cars and 5 passenger-train cars during Jan-

for bids on February 9 for two steel-underframed flat cars, one steel flat bottom gondola car, and one steel box car sheathed with wood lining and floor, all cars to be of 50-tons' capacity for service at the Norfolk, Va., Navy Yard.

#### Seek New Cars for "Exposition Flyer"

The Western Pacific has asked the Federal District Court at San Francisco, Cal., for permission to spend \$636,600 as its share of the cost of new lightweight, stainless steel, head-end cars for the Exposition Flyer, operated jointly with the Chicago, Burlington & Quincy and the Denver & Rio Grande Western between Chicago and San Francisco. A similar petition filed by the Rio Grande with the District Court at Den-

All have headquarters at New York, except Mr. Hostettler, who will be located at Detroit, Mich.

**F. M. Huffman**, assistant manager of sales at Baltimore, Md., of the **Bethlehem Steel Company**, has been appointed assistant general traffic manager, with headquarters at Bethlehem, Pa. Mr. Huffman attended Lehigh University following his service in the World War and entered the employ of the Bethlehem Steel Company upon his graduation in 1922. The following year he was assigned to the Philadelphia, Pa., sales office and was later transferred to Chicago. He was appointed manager of sales at St. Louis, Mo., in 1936, and in March, 1938, became assistant manager of sales at Baltimore.

**Nereus Hubert Roy** has recently been appointed head of the Research department of the **Waugh Equipment Company**, New York. Mr. Roy was born in Bonham, Tex., on July 4, 1895. He is an authority on instruments for, methods of, and practical interpretation of investigations in connection with mechanical equipment,



Nereus Hubert Roy

### Domestic Equipment Orders Reported in Issues of the Railway Age in January, 1940

#### LOCOMOTIVES

Date	Name of Company	No.	Type	Builder
Jan. 13	Wheeling & Lake Erie	4	0-6-0	Company Shops
Jan. 13	Delaware & Hudson	20	4-6-6-4	American Locomotive Co.
Jan. 27	Chicago, Burlington & Quincy	1	Diesel-electric	Electro-Motive Corp.
Jan. 27	Northern Pacific	3	Diesel-electric	American Locomotive Co.

#### FREIGHT CARS

Jan. 20	Norfolk & Western	100	Auto-Box	Greenville Steel Car
Jan. 27	Lehigh Valley	24	Caboose	Company Shops
Jan. 27	General Chemical Co.	75	Tank	General American
Jan. 27	Minneapolis & St. Louis	10	Cov. Hopper	General American

#### PASSENGER-TRAIN CARS

Jan. 27	Chicago, Burlington & Quincy	1	Mail-Baggage	Edward G. Budd Mfg. Co.
		1	Baggage-Express	Edward G. Budd Mfg. Co.
		2	Chair	Edward G. Budd Mfg. Co.
		1	Diner-Observation	Edward G. Budd Mfg. Co.

uary, as compared with 8 locomotives, 3 freight cars and 47 passenger-train cars purchased during January of 1939. In addition to the orders reported, there are inquiries outstanding to date for a total of 9 locomotives (5 steam and 4 Diesel-electric) and 200 freight cars. United States builders also received an order for 10 steam locomotives for export during the month.

Rolling mills in the United States have orders for 72,942 tons of steel rail reported during January.

#### IRON AND STEEL

THE MAINE CENTRAL has placed an order during the last quarter of 1939 for 1,450 tons of rail with the Bethlehem Steel Company.

#### FREIGHT CARS

THE TENNESSEE COPPER COMPANY is inquiring for eight air-dump cars of 50 tons' capacity.

THE WESTERN MARYLAND, having certain trucks and other equipment available, placed orders in the latter part of 1939 for sufficient items to complete the assembling of 30 caboose cars in its own shops. It is expected that the work will be finished during the first quarter of this year.

THE UNITED STATES NAVY DEPARTMENT, Bureau of Supplies and Accounts, is asking

ver, Colo., and seeking authority to spend \$390,000 was denied on January 13, but the Rio Grande will endeavor to have the decision reversed if permission to participate in the purchase of new cars is granted the Western Pacific. The Burlington's proportion of the cost would be \$669,000. The proposed equipment includes baggage, chair and dinette-chair cars.

## Supply Trade

The National Brake Company, Inc., will move its executive office from Buffalo, N. Y., to 50 Church street, New York, effective March 1. **William M. Wampler** has been elected president of the company with **C. T. Stansfield**, vice-president, **E. C. Mersereau**, vice-president in charge of sales and **S. T. Pearson**, secretary and treasurer.

**John W. Lohnes**, assistant to general manager of sales of the **Vanadium Corporation of America**, has been appointed assistant general manager of sales. **Donald C. Hostettler**, eastern sales representative, has been transferred to take charge of the corporation's Detroit district sales office as sales representative, to succeed **J. Berens Waters**, who is assuming the duties of general purchasing agent. **John B. Girdler** has been appointed eastern sales representative to succeed Mr. Hostettler.

such as passenger and freight cars, locomotives, draft gears, rails, wheels, axles and trucks. He attended the University of Texas from 1913 to 1917, and was commissioned and served in the U. S. Army Engineers, 1917-19. To pursue more intensive study of specific engineering problems he returned to college, receiving the degree of B.S. in C.E. from the University of Texas in 1920, and the degree of B.S. in C.E. (reciprocal) from the University of Mexico in 1923. He carried on subsequent post-graduate work at the University of Texas and the University of Illinois, obtaining from the latter the degree of M.S. in Theoretical and Applied Mechanics in 1929 and the Professional Degree of C.E. in 1930. During this period (1920-24) Mr. Roy had been engaged as field engineer and acting chief engineer of the International Petroleum Company, Tampico, Mexico, and (1925-28) as chief engineer and general field superintendent of the Milham Corporation of Texas (Seaboard Oil Corporation). He joined the faculty of the University of Illinois, Engineering Experiment Station, in 1928, and was appointed assistant research professor in 1931, in which position he remained until the fall

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**YOU CAN  
NEVER BE SURE**

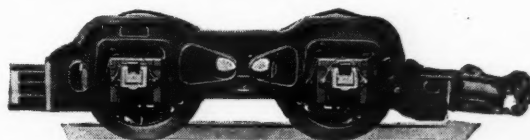
*where*

**THE DRIVERS WILL STOP.**



If the drivers stop on any one of the positions on the crank circle at which the power of only one cylinder of the locomotive is available, slack must be taken to place the drivers in a more favorable position . . . That is, unless the locomotive is equipped with The Booster.\* » » » The Locomotive Booster gives a nominal increase of only 20% in power, yet, in many cases it increases the starting drawbar pull more than 60%. In one specific case this is true at 214 degrees of the crank circle, at

which point the locomotive alone is capable of only 17,500 lbs. When The Booster is added the locomotive and Booster develop 30,000 lbs. . . . an increase of 67%. » » » **Be Prepared No Matter Where Your Drivers Stop . . . Install The Locomotive Booster!**



\*Trademark Registered United States Patent Office



**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

**NEW YORK  
CHICAGO  
MONTREAL**

February 3, 1940



of 1937. While at the University of Illinois he carried on research work on railroad engineering problems, including the study of fissures in rails, stresses in car axles, stresses in passenger and freight cars under impact, and locomotive balance. He was engaged as research consultant by the Association of American Railroads, the Pullman Standard Car & Manufacturing Company, and several railroads. On January 1, 1938, he entered the engineering department of the Waugh Equipment Company and was appointed director of research on November 1, 1939.

**Benton J. Willner and Maurice E. O'Brien** have been appointed assistant vice-presidents of the **Inland Steel Company**, Chicago. Mr. Willner will assume the position of manager of sales of the Sheet and Strip Steel division of which he has been assistant manager of sales since



**Benton J. Willner**

1936. He was first affiliated with the steel industry when he joined the Inland Steel Company at its Indiana Harbor Works in 1927. Three years later he was transferred to the department of Inspection and Metallurgy at the Chicago office and be-



**Maurice E. O'Brien**

came a member of the staff of the Sheet and Strip Steel sales division in 1931. Mr. O'Brien is manager of sales, carbon steel bars and billets, the position which he has held since 1936. He became affiliated with the Inland Steel Company's sales department in 1934, prior to which time he was

associated with the Illinois Steel Company.

**Sidney D. Williams**, whose appointment as vice-president in charge of sales



Photo by Parry

**Sidney D. Williams**

for the new Steel division at Warren, Ohio, of the **Copperweld Steel Company**, Glassport, Pa., was announced in the *Railway Age* of January 27, was graduated from Lehigh University in 1913, with the degree of metallurgical engineer. He then worked in the various departments of the Carnegie Steel Company, Homestead, Pa., until 1918, and during the same year served in the United States Naval Flying Corps. He then served respectively as superintendent of the open hearth department of the Central Iron & Steel Co., Harrisburg, Pa., and later as superintendent of the open hearth department and chief metallurgist of the Pittsburgh Crucible Steel Company, Midland, Pa. From 1926 to 1940 he was respectively metallurgical sales engineer, assistant director of sales, manager of tube sales and director of sales for the Timken Steel and Tube division of the Timken Roller Bearing Company, Canton, Ohio.

## OBITUARY

**William E. Robertson**, vice-president of W. H. Miner, Inc., Chicago, died in this city on January 31 of a heart ailment after a two day illness.

**J. C. Drummond**, assistant sales manager, **Thresher Varnish Company**, with headquarters at Chicago, died at a hospital in that city December 17, 1939, following a short illness.

**Colonel Arthur Farragut Townsend**, chairman of the board of Raybestos-Manhattan, Inc., and general manager of The Manhattan Rubber Mfg. division, Passaic, N. J., died on January 14, at his home in Ridgewood, at the age of 74.

**Frank Sherritt**, western sales manager of the Wilson-Imperial Company, Newark, N. J., with headquarters at Chicago, died on January 13 while en route to Florida. He had been in the employ of this company and its predecessor, the Wilson-Imperial Company, since 1905, and had acted as western sales manager of the latter since 1918.

## Financial

**ALLEN S. TRUX.—Abandonment.**—This applicant would be authorized to abandon the entire line of railroad formerly operated by the Mound City & Eastern, extending southeasterly from Long Lake, S. Dak., to Leola, 17.9 miles, if the Interstate Commerce Commission adopts the recommended report of its Examiner J. S. Prichard.

**ATCHISON, TOPEKA & SANTA FE.—New Director Elected.**—Charles John Whipple, president of Hibbard, Spencer, Bartlett & Company, Chicago, has been elected a director to fill the vacancy caused by the death on March 8, 1939, of Samuel T. Bledsoe, president of the Santa Fe.

**CHICAGO, ROCK ISLAND & PACIFIC.—Equipment Trust Certificates.**—This company has asked the Interstate Commerce Commission for authority to assume liability as guarantors of the principal and interest of \$20,400,000 of 2½ per cent equipment trust certificates, maturing in 15 equal annual installments of \$1,360,000 annually beginning October 1, 1940. In its petition to the commission the company points out that it proposes to make an agreement with the First National Bank of Chicago, as trustee, which will provide for the issuance of the certificates, the proceeds to be used to provide funds for the retirement of \$20,413,450 of trustees' 10-year 3½ per cent certificates of indebtedness now outstanding, being the remainder now outstanding of a total of \$26,883,550 of certificates issue as of July 1, 1937. The certificates will be sold at 100.8152942 to Salomon Brothers & Hutzler of New York. Other bids received were Halsey, Stuart & Co., 99.625; and First Boston Corporation, 100.57.

**ERIE.—Certificate.**—Trustees of this road have applied to the Interstate Commerce Commission for authority to issue a \$495,100 certificate in connection with the interest due it on October 1, 1938, and October 1, 1939, on holdings of \$9,902,000 in Chicago & Erie income bonds. The interest on the \$98,000 of such bonds in the hands of the public has been paid by the C. & E., and the Erie proposes to sell the aforementioned certificate to the City Bank Farmers Trust Company, New York, as trustee under its first consolidated mortgage deed dated December 10, 1895.

**ILLINOIS CENTRAL.—Operation Under Trackage Rights by the Yazoo & Mississippi Valley.**—Division 4 of the Interstate Commerce Commission, at the request of the Yazoo & Mississippi Valley, in Finance Docket 12573, has dismissed its application for authority to operate under trackage rights in Adams and Franklin Counties, Miss.

**LEHIGH VALLEY.—Pledge of Collateral.**—This road has applied to the Interstate Commerce Commission for a modification of the previous order in Finance Docket No. 12143 so as to permit the applicant to continue to pledge to and including December 31, 1941, certain of its bonds as collateral security for a three per cent short-term promissory note or notes issued to



**"EDWIN" NATURAL BRIDGE**  
SOUTHEASTERN UTAH

Typical of the beautiful natural arches that are to be found in many parts of the United States is the 194 foot span of the "Edwin" Natural Bridge of Southeastern Utah. This impressive monument to the forces of nature stands above the floor of the valley at a height of 104 feet. The top of the arch, where a prospector can be seen with his pack horses, is ten feet thick and 35 feet in width.

\* \* \* \* \*

The Security Sectional Arch is not a monument to nature. It is, however, a practical, economical means whereby man can control the forces of nature. When your locomotive leaves the roundhouse with an incomplete arch you are not realizing full efficiency from your fuel. Maintain a *complete* arch and obtain to the fullest the energy that nature has concealed in every pound of fuel.

*There's More to SECURITY ARCHES Than Just Brick*

**HARBISON-WALKER  
REFRACTORIES CO.**  
*Refractory Specialists*



**AMERICAN ARCH CO.  
INCORPORATED**  
60 EAST 42nd STREET, NEW YORK, N. Y.  
*Locomotive Combustion  
Specialists*



the Manufacturers Trust Company of New York and now outstanding in the amount of \$5,691,666.70. The application states that the extension is desired in connection with the working out of the applicant's interest-adjustment plan.

**ILLINOIS CENTRAL.**—*Abandonment by the Meridian, Brookhaven & Natchez.*—The Meridian, Brookhaven & Natchez and the Illinois Central, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon a line and the operation of a line extending from Brookhaven, Miss., to the so-called Brookhaven gravel pit, 4.7 miles.

**LOUISVILLE & NASHVILLE.**—*Bonds.*—Division 4 of the Interstate Commerce Commission has set February 5 as the date for a public hearing on the application of this company for authority to issue, sell, and deliver \$60,000,000 of collateral trust bonds, dated January 1, 1940—\$30,000,000 to be due January 1, 1950, and bearing interest at 3½ per cent, and \$30,000,000 due January 1, 1960, and bearing a four per cent rate. The bonds are to be offered privately by Morgan, Stanley & Co., but Halsey, Stuart & Co. and Otis & Co., have protested, asking that the commission require competitive bidding for the issue. Oliver E. Sweet, director of the commission's Bureau of Finance, and Examiner A. C. Devoe will conduct the hearing.

**MINNEAPOLIS & ST. LOUIS.**—*Trackage Rights.*—The Minneapolis & St. Louis Railroad Corporation, a new company, has asked the Interstate Commerce Commission for authority to acquire trackage rights over the lines of the Minneapolis & St. Louis Railway Company, and over the lines of the Great Northern between Hopkins, Minn., and Minneapolis, 15.9 miles over the M. & St. L. and 1.5 miles over the Great Northern.

**MISSISSIPPI & SKUNA VALLEY.**—*Stock.*—This company has been authorized to issue \$144,412 of common capital stock, consisting of 1,925.5 shares of a par value of \$75 a share, to be exchanged together with \$25 a share in cash for a like number of shares of outstanding stock of a par value of \$100. The company found that it had more cash on hand than it needed for its normal operations, so decided, because of the difficulty of investing the money so as to secure an adequate return and obtain security for it, to refund it to the stockholders.

**NEW YORK, NEW HAVEN & HARTFORD.**—*Payment out of Cash Surplus.*—Federal Judge C. C. Hincks, at New Haven, Conn., has refused to authorize the trustees of this road to issue new equipment trust certificates. Instead, he recommended that the road make its purchase with cash and instructed counsel to prepare an affidavit to show any reason why equipment ordered last year at a cost of \$1,250,000 should not be paid out of "the huge surplus." The judge referred to the large amount of cash which the railroad had on hand and observed that it would be well to use it for proper expenditures inasmuch as, in his opinion, the road must pay a premium to deposit the money with the banks.

**NORTHERN PACIFIC.**—*Three new directors elected.*—Horace H. Irvine and Philip L. Ray of St. Paul, Minn., and Harry W. Zinsmaster of Duluth, Minn., have been elected directors. Mr. Irvine is president of Thompson Yards, Inc., St. Paul, vice-president of Weyerhaeuser Sales Company and treasurer of Weyerhaeuser Timber Company of Tacoma, Wash. Mr. Ray is president of the First Trust Company and vice-president of the First National Bank of St. Paul. Mr. Zinsmaster is president of the Zinsmaster Baking Company of Duluth.

**PENNSYLVANIA.**—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon the following lines: Catawissa Branch, extending from Catawissa, Pa., to Scotch Valley, 11.2 miles; Mahaffey Branch, extending from Mahaffey, Pa., to Ostend, 1.7 miles; Moshannon Branch, extending from McCartney, Pa., to its terminus at valuation station 1165 plus 46, 1.1 miles; and the Youghiogheny Branch, extending from Cowansburg, Pa., to Cereal, five miles, a total of 18.9 miles.

**ST. LOUIS-SAN FRANCISCO.**—*Acquisition.*—Trustees of this road have applied to the Interstate Commerce Commission for authority to purchase from trustees of the Chicago, Rock Island & Pacific and of the Choctaw, Oklahoma & Gulf a 13.3-mile section of line from Frisco Junction, Okla., to Ardmore along with terminal facilities at the latter point. The proposed purchase price is \$250,000.

**SEABOARD AIR LINE.**—*Plan of reorganization.*—A plan of reorganization for this road, which has been in receivership since 1930, was filed with the Federal District Court at Norfolk, Va., on January 30, by the underlying bondholders' committee headed by E. G. Baeter, of Baltimore, Md. Briefly it provides that fixed charges of the road (including rentals) be reduced from approximately \$9,350,000 annually to \$1,049,702, and that funded debt, including accrued and unpaid interest, be reduced from \$306,500,000 to about \$109,576,000. This is the second bondholders' plan to be filed with the court, the first having been submitted by a committee for holders of the first and consolidated 6 per cent mortgage bonds of the railroad in December, which was summarized in the *Railway Age* for December 9, page 905.

#### Average Prices of Stocks and Bonds

	Jan. 30	Last week	Last year
Average price of 20 representative railway stocks..	31.49	31.20	29.58
Average price of 20 representative railway bonds..	58.96	58.75	60.63

#### Dividends Declared

Cleveland & Pittsburgh. — Guaranteed, 87½¢, quarterly; 4 Per Cent Guaranteed, 50¢, quarterly, both payable March 1 to holders of record February 10.

Michigan Central. — \$25, semi-annually, payable January 31 to holders of record January 20.

Nashville, Chattanooga & St. Louis. — \$1.00, payable February 26 to holders of record February 10.

Norfolk & Western. — \$2.50, quarterly, payable March 19 to holders of record February 29.

Reading. — First Preferred, 50¢, quarterly, payable March 14 to holders of record February 21.

## Railway Officers

### EXECUTIVE

**G. H. Shafer**, general traffic manager for the Weyerhaeuser interests, with headquarters at St. Paul, Minn., has been elected a vice-president of the Duluth & Northeastern.

**W. C. Sloan**, general manager of all lines of the Northern Pacific, with headquarters at St. Paul, Minn., and Seattle, Wash., has been promoted to assistant vice-president in charge of maintenance and operations and general manager of Lines West of Livingston, Mont., with headquarters at Seattle.

**Robert S. Macfarlane**, western counsel of the Northern Pacific, has been appointed assistant to the president and western counsel, with headquarters as before at Seattle, Wash. Mr. Macfarlane was born in Minneapolis in 1899, and graduated from the University of Washington, Seattle, in 1921. Following his graduation, he practiced law with United States Senator Lewis B. Schwellenbach in Seattle and, in 1930, he was elected to the King County Superior Court bench, where he served until he resigned to become assistant western counsel of the Northern Pacific in 1934. In 1937, Mr. Macfarlane was promoted to western counsel.

**F. S. Risely**, assistant vice-president and general manager on the New York Central system, with headquarters at Cleveland, Ohio, has been given a leave of absence, effective January 1, because of ill health. As announced in the *Railway Age* of February 27, **F. F. Riefel**, assistant vice-president, with headquarters at Chicago, has been promoted to assistant vice-president and general manager, with headquarters at Cleveland, succeeding Mr. Risely.

Mr. Riefel entered railway service on January 28, 1892, as an office boy on the New York Central at Buffalo, N. Y., and was later promoted successively to telegraph operator, train dispatcher, chief dispatcher, assistant trainmaster, trainmaster and assistant superintendent. In 1912, he was promoted to superintendent of telegraph, with headquarters at Cleveland, and in 1915, he was advanced to superintendent of the Detroit division, with headquarters at Detroit, Mich. Mr. Riefel was further promoted to general superintendent, with headquarters at Chicago, in 1926, and to assistant vice-president, with the same headquarters in 1937.

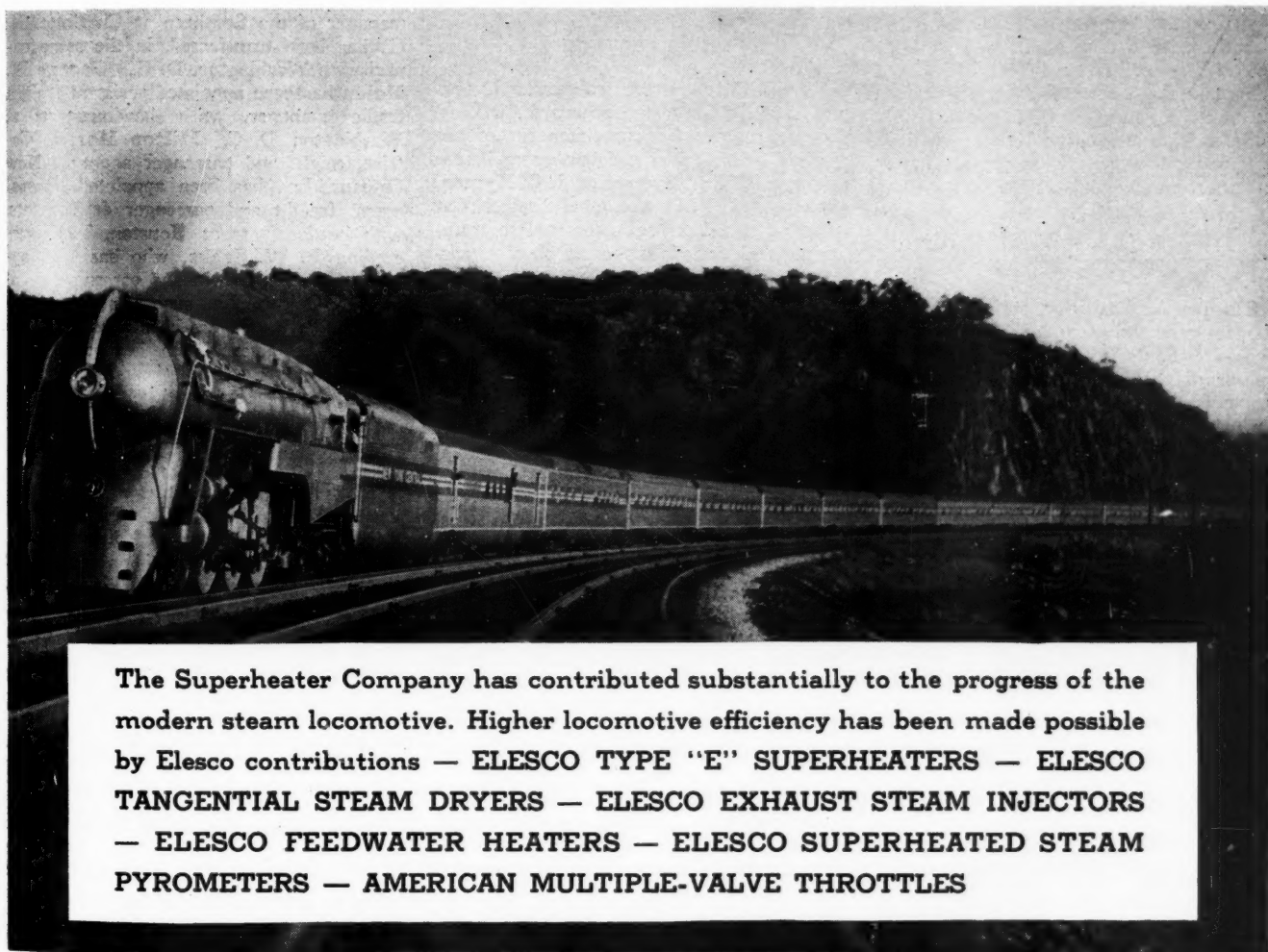
**Morris Rutherford**, president of the Lehigh & Hudson River, with headquarters at Warwick, N. Y., has retired, as reported in the *Railway Age* of December 30. Mr. Rutherford entered railway service on December 1, 1883, as an office boy with the Lehigh & Hudson River and later served as clerk and paymaster. In 1886 he became assistant general freight agent; in 1895, general freight agent, and in 1902,

Continued on next left-hand page

# Progress

"No industry has been more progressive than the railroads. No industry displayed greater courage than did the railroads when, in the depths of the depression, they continued modernizing their plant and equipment, adopting the latest inventions and discoveries in lightweight materials, streamline design, air-conditioning and other improvements"—

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general freight and passenger agent. In 1905, during a general reorganization of the company, Mr. Rutherford was elected



**Morris Rutherford**

vice-president and general manager and served in that capacity until May, 1925, with the exception of about two years as general manager under the United States Railroad Administration. Mr. Rutherford served as president and general manager of the Lehigh & Hudson River from 1925 to January, 1939, serving as president from the latter date until his retirement.

#### FINANCIAL, LEGAL AND ACCOUNTING

**Charles A. Gardiner**, assistant auditor of passenger accounts of the Atchison, Topeka & Santa Fe, has been promoted to auditor of passenger accounts, with headquarters as before at Topeka, Kan., succeeding **S. C. Nichols**, who has retired.

**J. N. Dougan**, assistant land and tax commissioner of the Gulf, Colorado & Santa Fe, has been promoted to land and tax commissioner, with headquarters as before at Galveston, Tex., succeeding **O. L.**



**J. N. Dougan**

**Clarke**, whose retirement on October 31 was announced in the *Railway Age* of November 14.

**S. P. Ramsey**, tax investigator for the G. C. & S. F. at Galveston, has been promoted to assistant land and tax commissioner, succeeding Mr. Dougan. Mr. Dou-

gan was born at Cleburne, Tex., on May 25, 1897, and attended Daugherty's School of Business at Topeka, Kan., for one year. He entered railway service on May 30, 1913, as a clerk on the Santa Fe at Beaumont, Tex. He later served in various capacities in Beaumont and, in 1923, he was transferred to Galveston as a clerk in the tax department. Mr. Dougan was promoted to assistant land and tax commissioner in 1926.

**Joseph H. Miller**, whose promotion to general attorney of the Wabash, with headquarters at St. Louis, Mo., was announced in the *Railway Age* of January 20, was born at Hannibal, Mo., on June 17, 1890. He entered railway service with the Wabash in 1907, and later attended night law school at St. Louis University for five years, obtaining his LL.B. degree in 1922 and his LL.M. degree in 1924. In 1922, he was appointed assistant attorney for the Wabash, and in the fall of 1927, he was promoted to assistant general attorney, the position he held until his recent promotion.

#### OPERATING

**W. R. Olive**, senior trainmaster, North Carolina division of the Seaboard Air Line, has been appointed superintendent of the same division, with headquarters as before at Hamlet, N. C., succeeding **J. C. Hyman**, deceased. **J. L. Cooke**, chief dispatcher at Atlanta, Ga., has been promoted to trainmaster, with headquarters at Hamlet, succeeding Mr. Olive.

**W. W. Judson**, division superintendent of the Northern Pacific at Missoula, Mont., has been promoted to general manager of Lines East of Livingston, with headquarters at St. Paul and has been succeeded by **D. S. Colby**, superintendent at Fargo, N. D., who in turn has been succeeded by **J. A. Mercer**, assistant superintendent at Fargo. **F. R. Bartles**, assistant general manager with headquarters at St. Paul has been appointed assistant general manager for Lines West with headquarters at Seattle, to succeed **T. F. Lowry**, retired.

**Edwin J. McGreary**, superintendent of the Bessemer & Lake Erie, has been appointed general superintendent with headquarters as before at Greenville, Pa., succeeding **W. M. Johnson**, who has retired after more than 42 years of service with this road. **James C. Bailey**, assistant to general superintendent, at Greenville, has been appointed assistant general superintendent, with headquarters at Greenville. **W. L. Morneweck**, assistant superintendent, has been appointed superintendent, with headquarters as before at Greenville, succeeding Mr. McGreary.

#### TRAFFIC

**T. L. Vogel**, city ticket agent for the Union Pacific at Los Angeles, Cal., has been promoted to general agent at Pasadena, Cal., succeeding **C. F. Farmer**, who has been appointed general agent, passenger department, at Los Angeles. Mr. Farmer replaces **L. M. Brown**, who has retired.

**Frank O'Kane**, general agent jointly for the Chicago, Burlington & Quincy and

the Chicago, Rock Island & Pacific at Houston, Tex., has been appointed general agent for the Rock Island at that point, and **H. T. Lucas**, general agent, freight department on the Rock Island at Houston, has been appointed commercial agent.

**William P. Walker**, district passenger agent of the Chesapeake & Ohio at Philadelphia, Pa., has been transferred in the same capacity to New York City. **Calvin B. Kincaid**, assistant general passenger agent at Cincinnati, Ohio, has been transferred in the same capacity to Washington, D. C.

**J. E. Whitney**, general eastern agent, Illinois Central, has been appointed eastern traffic manager, with headquarters as before at New York, succeeding **V. D. Fort**, who has retired, effective February 1, after 47 years of service with this road. **J. J. Mahoney** has been appointed general agent, with headquarters at New York, succeeding Mr. Whitney.

**C. B. Walker**, assistant freight traffic manager of the Southern at Charlotte, N. C., has been transferred, in the same capacity, to Washington, D. C., **George M. Nolen** has been appointed assistant freight traffic manager, with headquarters at Washington, D. C. **Milton Martin**, district freight and passenger agent at New Orleans, La., has been appointed general agent, freight and passenger departments, with headquarters at Houston, Tex., succeeding **P. W. Jacks**, who has been appointed district freight and passenger agent at New Orleans, La., succeeding Mr. Martin. **A. R. Gould** has been appointed division freight agent, with headquarters at Lynchburg, Va. All of these appointments are effective February 1.

#### ENGINEERING AND SIGNALING

**Roy A. Brown**, acting division engineer on the Chicago, Rock Island & Pacific, with headquarters at Fairbury, Neb., has been promoted to division engineer at that point, succeeding **E. F. Manson**, who retired on January 1 because of ill health.

**E. R. Logie**, division engineer, Canadian National, with headquarters at Belleville, Ont., has been appointed district engineer, Southern Ontario district, with headquarters at Toronto, Ont., succeeding **J. R. Mackenzie**, promoted.

**K. Huffman** has been appointed engineer of construction of the Central region of the Canadian National, with headquarters at Toronto, Ont., to succeed **R. A. Baldwin**, whose retirement was reported in the January 30 issue of the *Railway Age*.

**C. H. Hardwick**, roadmaster on the Chicago, Rock Island & Pacific, with headquarters at El Reno, Okla., has been promoted to district maintenance engineer, with the same headquarters, succeeding **Mason Rector**, who resigned, effective February 1.

**Chester B. Clegg**, water service and heating engineer of the Western lines of the Atchison, Topeka & Santa Fe, has been (*Railway Officers continued on page 271*)



Truck Body built of "A.W." Dyn-el for C. P. Maiden by Barry & Baily Co., Phila. Over-all length, 260". Over-all width, 96". Over-all height, 98".

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## Freight Operating Statistics of Large Steam Railways—Selected Items for the Month of November.

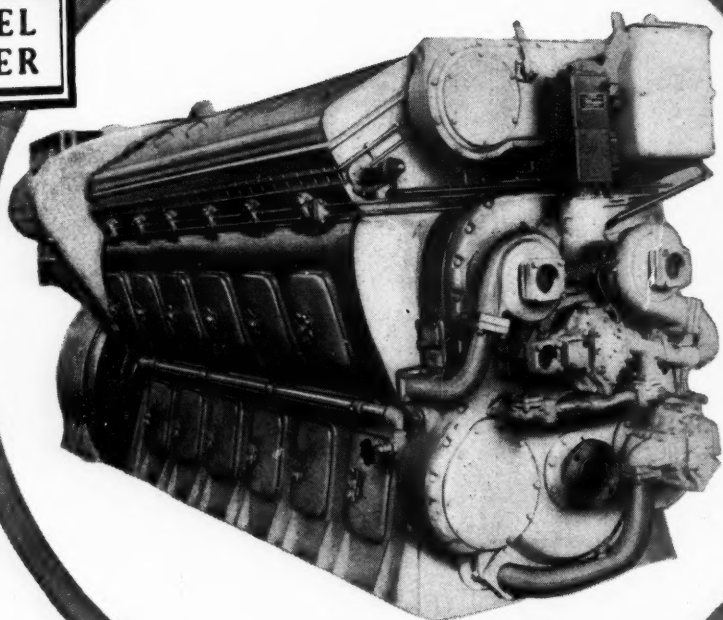
Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles		Car-miles		Ton-miles (thousands)		Number of road locomotives on line			
			Principal and helper	Light	Loaded (thousands)	Per cent loaded	Gross, excluding locomotives and tenders	Net, revenue and non-revenue	Serviceable		Per cent un-serviceable	
									Not stored	Stored		
New England Region:												
Boston & Albany.....1939	362	151,030	155,994	11,031	3,206	65.6	192,571	74,216	60	..	28	31.8
1938	374	124,561	129,075	8,579	2,656	65.7	149,357	51,373	56	3	31	34.4
Boston & Maine.....1939	1,915	295,084	332,302	25,414	10,112	66.6	584,268	216,851	125	..	48	27.7
1938	1,937	255,356	284,019	24,349	8,493	68.6	477,965	179,671	131	1	107	44.8
N. Y., New Hav. & Hartf..1939	1,846	357,056	445,102	29,028	12,904	66.9	713,515	270,421	195	11	43	23.1
1938	1,854	311,706	390,859	23,294	10,720	66.2	585,327	214,390	158	2	105	38.3
Great Lakes Region:												
Delaware & Hudson.....1939	845	246,222	337,466	37,942	8,733	65.0	557,677	272,628	134	39	67	27.9
1938	830	202,416	268,905	27,944	6,911	65.7	431,072	207,364	115	96	46	17.9
Del., Lack. & Western....1939	983	368,426	421,819	58,641	13,548	68.0	805,661	328,811	124	4	79	38.2
1938	983	324,909	363,660	49,466	11,585	68.9	665,071	262,288	123	2	84	40.2
Erie (incl. Chi. & Erie)....1939	2,290	690,270	741,830	43,062	30,808	65.1	1,905,372	740,540	262	12	148	35.1
1938	2,291	622,054	661,194	35,629	26,633	64.0	1,638,963	600,574	219	18	234	49.7
Grand Trunk Western....1939	1,023	251,821	254,238	2,240	7,233	62.4	445,827	159,545	68	1	34	33.0
1938	1,027	245,250	246,505	1,766	6,495	61.1	403,316	138,638	70	..	46	39.7
Lehigh Valley.....1939	1,265	332,705	373,770	60,569	13,781	65.5	881,658	380,375	124	..	106	46.1
1938	1,267	279,379	308,141	46,244	11,205	67.1	685,528	287,237	126	2	111	46.4
New York Central.....1939	10,606	2,773,695	2,948,266	191,019	92,734	58.2	6,527,629	2,761,268	940	72	413	29.0
1938	10,651	2,486,487	2,626,865	166,486	81,424	58.8	5,564,432	2,283,219	866	127	483	32.7
N. Y., Chicago & St. Louis.1939	1,672	518,634	525,441	6,492	18,921	64.1	1,146,473	431,185	164	4	30	15.2
1938	1,672	465,524	474,363	5,785	16,369	62.0	1,000,780	363,086	155	9	34	17.2
Pere Marquette.....1939	2,081	381,007	388,369	6,901	10,390	60.0	679,608	258,123	119	1	38	24.1
1938	2,081	329,134	333,713	6,304	8,880	59.6	586,084	222,020	113	1	52	31.3
Pittsburgh & Lake Erie....1939	233	87,305	90,410	34	3,647	60.5	322,151	185,325	37	2	26	40.0
1938	233	70,936	73,276	.....	2,841	59.6	245,402	137,596	36	3	36	48.0
Wabash.....1939	2,397	578,925	589,448	12,448	18,331	65.1	1,089,447	389,578	148	8	114	42.2
1938	2,397	533,319	542,813	11,325	16,479	64.2	978,128	343,151	133	9	131	48.0
Central Eastern Region:												
Baltimore & Ohio.....1939	6,269	1,625,449	2,024,015	228,509	52,404	61.0	3,736,209	1,736,775	737	37	435	36.0
1938	6,307	1,318,448	1,602,057	171,624	39,836	60.0	2,807,303	1,236,991	611	132	479	39.2
Central of New Jersey....1939	679	166,463	190,009	37,484	5,476	62.3	382,721	186,333	75	8	71	46.1
1938	681	139,670	159,229	31,487	4,373	61.5	301,023	141,433	74	3	76	49.7
Chicago & Eastern Illinois.1939	927	170,171	170,387	2,992	4,228	64.4	269,735	115,059	58	2	34	36.2
1938	927	169,521	169,633	2,866	4,233	63.3	274,963	114,874	51	..	55	51.9
Elgin, Joliet & Eastern....1939	390	116,370	118,163	1,895	2,955	55.5	244,655	118,640	61	..	17	21.8
1938	435	89,239	90,559	1,314	2,044	56.1	164,855	78,271	51	2	29	35.4
Long Island.....1939	375	27,721	28,886	17,499	296	50.1	22,441	7,750	34	2	12	25.0
1938	390	29,926	31,067	16,694	269	50.9	20,750	7,576	26	7	15	31.3
Pennsylvania System.....1939	9,995	3,262,751	3,944,998	486,622	123,307	59.6	8,879,025	4,017,821	1,353	48	870	38.3
1938	10,000	2,453,412	2,977,608	334,908	90,532	60.7	6,184,721	2,678,091	1,179	160	1,013	43.1
Reading.....1939	1,442	429,682	480,802	59,745	13,163	63.3	957,582	480,508	221	3	145	39.3
1938	1,442	355,411	393,963	46,406	10,214	62.1	737,691	358,001	175	20	159	44.9
Pocahontas Region:												
Chesapeake & Ohio.....1939	3,046	922,245	971,548	43,493	42,367	53.8	3,687,556	1,971,978	412	21	95	18.0
1938	3,050	805,845	842,641	36,464	35,471	54.5	3,044,450	1,639,523	362	31	136	25.7
Norfolk & Western.....1939	2,169	709,878	748,101	46,856	31,232	56.4	2,679,585	1,424,533	292	25	35	9.9
1938	2,169	617,949	642,395	34,629	26,355	58.0	2,196,039	1,162,250	268	52	45	12.3
Southern Region:												
Atlantic Coast Line.....1939	5,078	647,091	650,981	9,473	14,345	62.1	843,278	290,479	255	15	50	15.6
1938	5,079	578,028	580,347	8,298	12,022	59.4	720,010	233,912	258	27	98	25.6
Central of Georgia.....1939	1,838	256,861	258,017	3,226	5,354	69.3	307,301	118,791	97	..	22	18.5
1938	1,838	239,371	240,963	3,334	4,957	68.1	284,375	107,309	92	..	32	25.8
Illinois Central (incl. Y. & M. V.).....1939	6,537	1,339,103	1,350,210	25,892	38,365	60.5	2,569,074	1,071,367	601	23	155	19.9
1938	6,540	1,269,438	1,275,291	23,753	34,555	59.5	2,299,854	926,248	628	13	213	24.9
Louisville & Nashville....1939	4,897	1,138,298	1,227,403	34,595	28,498	58.5	2,061,933	984,179	345	..	164	32.2
1938	4,928	998,025	1,064,284	27,936	23,775	58.6	1,702,051	801,622	326	12	206	37.9
Seaboard Air Line.....1939	4,303	584,867	612,157	4,787	15,339	65.0	908,713	341,926	229	6	88	22.4
1938	4,305	517,423	538,224	3,654	12,612	62.2	765,520	277,135	217	13	86	27.2
Southern.....1939	6,479	1,436,312	1,460,350	22,019	32,696	64.3	1,954,315	769,562	477	3	170	26.2
1938	6,561	1,255,689	1,274,360	19,225	27,320	63.5	1,629,978	626,019	476	16	211	30.0
Northwestern Region:												
Chicago & North Western..1939	8,326	847,846	873,764	17,748	25,031	61.8	1,598,901	625,775	320	59	294	43.7
1938	8,394	826,886	854,473	20,871	23,412	61.5	1,499,569	562,623	278	162	258	37.0
Chicago Great Western....1939	1,450	259,912	263,698	7,919	7,571	60.0	486,975	171,228	66	4	15	17.6
1938	1,450	265,236	267,788	9,385	7,308	59.0	468,005	158,261	67	1	29	29.9
Chi., Milw., St. P. & Pac..1939	10,882	1,242,153	1,285,117	45,245	35,730	60.2	2,358,319	948,908	447	57	158	23.9
1938	10,941	1,205,988	1,242,784	39,464	32,480	60.2	2,125,012	841,402	417	98	163	24.0
Chi., St. P., Minneap. & Om.1939	1,619	213,646	222,680	9,282	5,111	65.5	314,767	126,453	103	10	24	17.5
1938	1,619	207,363	217,094	9,428	4,714	64.2	293,095	119,363	107	13	20	14.3
Great Northern.....1939	7,976	818,842	817,002	31,727	28,411	61.1	1,975,857	838,918	338	62	148	27.0
1938	7,976	774,614	772,692	29,090	24,924	62.9	1,646,879	677,388	335	66	154	27.7
Minneap., St. P. & S. St. M.1939	4,261	397,821	403,319	4,991	9,606	64.4	585,080	242,368	118	..	24	16.9
1938	4,266	363,128	367,432	3,546	7,707	63.9	458,762	180,251	119	1	32	21.1
Northern Pacific.....1939	6,423	663,171	700,177	38,889	22,065	66.0	1,378,225	588,133	361	5	83	18.5
1938	6,423	625,168	650,611	31,166	19,592	68.8	1,186,626	506,141	355	23	86	18.5
Central Western Region:												
Alton.....1939	914	202,095	215,396	1,712	4,458	61.1	290,694	123,296	67	9	13	14.6
1938	912	185,888	195,177	1,063	3,915	61.4	248,624	96,135	62	13	19	20.2
Atch., Top. & S. Fe (incl. G.C. & S.F. & P. & S.F.)1939	13,446	1,837,563	1,950,647	86,025	51,619	61.0	3,321,790	1,121,944	618	56	179	21.0
1938	13,500	1,823,453	1,936,240	89,901	50,114	59.4	3,260,969	1,022,065	601	32	288	31.3
Chicago, Burl. & Quincy...1939	8,976	1,179,439	1,216,800	43,144	34,462	61.2	2,236,053	893,251	452	18	97	17.1
1938	8,907	1,146,268	1,183,619	37,488	31,765	61.0	2,073,506	830,951	460	32	72	12.8
Ch., Rock I. & Pac. (incl. Chi., Rock I. & Gulf).....1939	7,830	1,082,										

## 1939, Compared with November, 1938, for Roads with Annual Operating Revenues above \$25,000,000

Region, road, and year	Number of freight cars on line			Per cent un-serv-ice-able	Gross ton-miles per train-hour, excluding locomotives and tenders		Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1,000 gross ton-miles, including locomotives and tenders	Loco-motive-miles per locomotive-day
	Home	Foreign	Total		Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile, excluding locomotives and tenders							
New England Region:													
Boston & Albany.....1939	1,005	4,961	5,966	2.2	21,442	1,296	500	23.1	414	27.3	6,834	154	67.1
1938	1,058	4,071	5,129	3.0	18,698	1,211	417	19.3	320	25.2	4,579	171	54.7
Boston & Maine.....1939	5,022	7,612	12,634	4.3	28,064	1,990	739	21.4	550	38.5	3,775	100	73.6
1938	7,403	8,549	15,952	10.9	24,331	1,878	706	21.2	371	25.6	3,092	103	47.5
N. Y., New Hav. & Hartf.....1939	5,704	12,587	18,291	4.3	29,721	2,027	768	21.0	481	34.3	4,883	107	67.5
1938	7,702	12,514	20,216	9.0	26,754	1,912	700	20.0	358	27.0	3,855	107	57.0
Great Lakes Region:													
Delaware & Hudson.....1939	7,063	4,359	11,422	3.3	34,344	2,281	1,115	31.2	794	39.1	10,755	116	54.3
1938	7,534	2,978	10,512	4.9	32,502	2,142	1,030	30.0	627	31.8	8,328	109	40.3
Del., Lack. & Western.....1939	10,343	8,052	18,395	6.9	38,928	2,216	904	24.3	603	36.5	11,150	132	81.2
1938	12,889	6,708	19,597	17.5	37,681	2,075	818	22.6	454	29.1	8,894	133	68.8
Erie (incl. Chi. & Erie)....1939	15,185	15,527	30,712	2.6	46,675	2,782	1,081	24.0	798	51.0	10,779	100	68.8
1938	16,661	12,843	29,504	6.0	44,315	2,657	974	22.5	669	46.4	8,738	100	54.7
Grand Trunk Western.....1939	3,901	6,777	10,678	9.2	34,662	1,775	635	22.1	476	34.6	5,199	96	91.4
1938	5,073	6,214	11,287	15.8	32,694	1,657	569	21.3	405	31.1	4,500	97	78.6
Lehigh Valley.....1939	9,300	12,791	22,091	1.4	49,870	2,684	1,158	27.6	589	32.6	10,023	114	66.5
1938	10,446	10,137	20,583	6.9	45,559	2,481	1,039	25.6	467	27.1	7,557	118	52.5
New York Central.....1939	78,202	70,523	148,725	14.7	39,018	2,375	1,005	29.8	616	35.5	8,678	102	83.1
1938	95,762	61,212	156,974	22.1	37,126	2,257	926	28.0	476	28.9	7,146	106	71.1
N. Y., Chicago & St. Louis.1939	5,654	8,527	14,181	3.4	40,112	2,214	833	22.8	1,006	68.9	8,596	91	96.8
1938	7,082	6,508	13,590	4.0	39,602	2,154	781	22.2	871	63.4	7,239	91	87.2
Pere Marquette.....1939	7,385	8,010	15,395	3.2	30,035	1,792	680	24.8	553	37.1	4,135	97	91.5
1938	9,983	6,654	16,637	4.7	29,212	1,782	675	25.0	449	30.1	3,556	90	76.5
Pittsburgh & Lake Erie....1939	8,600	10,066	18,666	31.6	48,855	3,700	2,129	50.8	337	11.0	26,513	87	51.4
1938	9,915	8,922	18,837	34.1	45,852	3,465	1,943	48.4	243	8.4	19,685	93	35.6
Wabash .....1939	11,517	10,107	21,624	11.1	39,305	1,899	679	21.3	585	42.3	5,418	117	78.2
1938	15,686	9,219	24,905	9.5	37,844	1,859	652	20.8	451	33.7	4,772	119	70.6
Central Eastern Region:													
Baltimore & Ohio.....1939	51,330	26,931	78,261	7.2	30,524	2,334	1,085	33.1	711	35.2	9,236	140	66.4
1938	58,393	20,862	79,255	21.3	28,922	2,159	951	31.1	510	27.4	6,538	143	51.9
Central of New Jersey.....1939	9,185	13,503	22,688	24.1	29,987	2,441	1,189	34.0	271	12.8	9,147	132	62.3
1938	9,698	11,615	21,313	28.8	26,541	2,300	1,081	32.3	221	11.1	6,923	138	54.2
Chicago & Eastern Illinois...1939	2,620	3,272	5,892	4.5	28,583	1,591	679	27.2	639	36.5	4,137	128	65.8
1938	3,096	3,523	6,619	6.3	29,417	1,630	681	27.1	581	33.8	4,131	125	57.5
Elgin, Joliet & Eastern.....1939	8,089	6,294	14,383	2.9	18,742	2,148	1,042	40.1	280	12.6	10,140	114	73.5
1938	9,011	4,040	13,051	6.2	17,025	1,896	900	38.3	211	9.8	5,998	119	53.0
Long Island.....1939	121	3,142	3,263	1.1	6,182	828	286	26.2	74	5.6	689	351	47.7
1938	361	3,342	3,703	2.8	5,498	711	260	28.2	68	4.7	648	326	48.0
Pennsylvania System.....1939	166,993	74,179	241,172	15.5	39,377	2,784	1,260	32.6	557	28.7	13,399	110	71.5
1938	194,679	52,686	247,365	20.9	37,885	2,563	1,110	29.6	361	20.1	8,927	115	52.3
Reading .....1939	22,298	17,607	39,905	20.5	28,176	2,238	1,123	36.5	405	17.5	11,107	135	55.4
1938	25,248	11,335	36,583	22.3	25,988	2,081	1,010	35.1	328	15.1	8,276	139	46.0
Pocahontas Region:													
Chesapeake & Ohio.....1939	45,709	13,755	59,464	1.0	55,469	4,043	2,162	46.5	1,140	45.6	21,580	76	71.9
1938	46,635	10,992	57,627	3.1	56,198	3,807	2,050	46.2	959	38.1	17,918	77	61.1
Norfolk & Western.....1939	35,357	5,161	40,518	2.0	57,801	3,826	2,034	45.6	1,250	48.6	21,892	91	81.6
1938	38,223	4,378	42,601	8.0	54,131	3,596	1,903	44.1	957	37.4	17,862	96	68.3
Southern Region:													
Atlantic Coast Line.....1939	14,011	9,103	23,114	18.3	23,923	1,308	450	20.2	436	34.6	1,907	108	73.1
1938	17,647	6,874	24,521	23.6	21,681	1,252	406	19.5	314	27.2	1,535	109	56.0
Central of Georgia.....1939	3,983	3,176	7,159	1.8	23,872	1,207	467	22.2	554	36.0	2,154	123	79.8
1938	5,006	2,460	7,466	2.2	23,300	1,192	450	21.6	476	32.3	1,946	124	71.9
Illinois Central (incl. Y. & M. V.).....1939	27,239	17,687	44,926	1.8	30,778	1,931	805	27.9	771	45.6	5,463	132	61.4
1938	27,564	15,336	42,900	4.5	28,694	1,822	734	26.8	689	43.2	4,721	136	55.1
Louisville & Nashville.....1939	36,688	10,161	46,849	17.0	28,300	1,813	866	34.5	741	36.7	6,699	127	84.8
1938	40,487	8,706	49,193	19.2	26,393	1,707	804	33.7	553	28.0	5,422	130	71.5
Seaboard Air Line.....1939	10,534	7,167	17,701	4.2	26,994	1,575	593	22.3	647	44.6	2,649	122	75.8
1938	11,721	5,550	17,271	3.4	25,351	1,507	546	22.0	530	38.8	2,146	118	64.5
Southern .....1939	19,681	20,566	40,247	7.3	23,731	1,371	540	23.5	637	42.1	3,959	143	79.2
1938	21,774	18,789	40,563	10.0	22,888	1,306	502	22.9	517	35.5	3,181	142	64.4
Northwestern Region:													
Chicago & North Western...1939	31,618	25,295	56,913	9.9	29,972	1,936	758	25.0	354	22.9	2,505	113	47.9
1938	39,752	18,799	58,551	9.3	28,929	1,880	705	24.0	314	21.2	2,234	121	45.6
Chicago Great Western.....1939	2,179	3,343	5,522	2.0	35,471	1,875	659	22.6	1,006	74.2	3,936	126	113.0
1938	2,552	3,475	6,027	2.8	32,728	1,767	598	21.7	856	67.0	3,638	133	103.2
Chi., Milw., St. P. & Pac...1939	42,434	17,981	60,415	2.4	31,099	1,907	767	26.6	520	32.6	2,907	119	72.7
1938	46,381	16,398	62,779	3.3	28,786	1,769	701	25.9	454	29.1	2,563	123	69.1
Chi., St. P., Minneap. & Om.1939	2,590	6,898	9,488	7.9	20,279	1,495	606	24.7	437	27.0	2,604	117	59.9
1938	3,241	5,314	8,555	8.5	19,068	1,422	579	25.3	473	29.1	2,458	116	58.8
Great Northern.....1939	34,753	10,760	45,513	6.4	36,512	2,426	1,030	29.5	607	33.6	3,506	108	57.2
1938	37,688	9,092	46,780	7.0	31,845	2,139	880	27.2	472	27.6	2,831	124	53.4
Minneap., St. P. & S. St. M.1939	12,160	4,151	16,311	4.0	25,178	1,476	611	25.2	505	31.0	1,896	103	97.5
1938	13,071	3,446	16,517	5.0	21,254	1,267	498	23.4	371	24.8	1,408	110	82.7
Northern Pacific.....1939	28,216	5,908	34,124	8.2	32,530	2,084	890	26.7	576	32.7	3,052	138	60.2
1938	30,698	5,009	35,707	8.5	29,470	1,908	814	25.8	478	26.9	2,627	149	54.0
Central Western Region:													
Alton .....1939	1,652	5,663	7,315	8.5	35,933	1,450	615	27.7	558	33.0	4,497	121	87.5
1938	1,805	5,878	7,683	10.6	33,040	1,348	521	24.6	417	27.7	3,514	122	73.7
Atch., Top. & S. Fe (incl. G.C. & S.F. & P. & S.F.)1939	69,181	12,204	81,385	9.3	35,297	1,813	613	21.7	473	35.7	2,781	118	84.3
1938	76,763	11,675	88,438	11.8	34,258	1,793	562	20.4	396	32.7	2,524	126	77.5
Chicago, Burl. & Quincy...1939	27,507	15,395	42,902	6.6	32,959	1,905	761	25.9	692	43.6			



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## News—Railway Officers

(Continued from page 268)

promoted to assistant engineer, with headquarters as before at Amarillo, Tex. Mr. Clegg will continue with his former duties as water service and heating engineer on the Western lines in addition to such other duties as may be assigned to him.

**Herbert Luxon** has been appointed signal engineer of the Interborough Rapid Transit Company, New York. Mr. Luxon was born at Scottsville, N. Y., on December 11, 1887, and was graduated from Pratt Institute, Brooklyn, N. Y. He served as special apprentice at the factory of the General Railway Signal Company, then took the apprenticeship course of the Union Switch & Signal Co., and later was engaged on signal projects on the New York, Westchester & Boston, the Long Island, the Chicago, Milwaukee & St. Paul (now the Chicago, Milwaukee, St. Paul & Pacific), and the Central Railroad of New Jersey. Following this he served with the Interborough Rapid Transit Company, except from April, 1918, to March, 1919, when he was in the United States Army. He succeeds **William A. Bartley**, who retired on December 1; **Louis A. Swanson** has been appointed assistant signal engineer to succeed Mr. Luxon.

**George V. Guerin, Jr.**, whose promotion to bridge engineer of the Great North-



**George V. Guerin, Jr.**

ern, with headquarters at St. Paul, Minn., was announced in the *Railway Age* of January 13, was born at St. Paul on June 17, 1902, and graduated in civil engineering from the University of Minnesota in 1924. He entered railway service on June 11, 1924, as a draftsman in the bridge department of the Great Northern, and on October 1, 1926, he was promoted to inspector, serving in that capacity and as a draftsman and inspector until February 25, 1929, when he was promoted to assistant bridge engineer, with headquarters at St. Paul, the position he held until his promotion to bridge engineer, effective January 1.

**Henry S. Loeffler**, whose promotion to assistant chief engineer of the Great Northern, with headquarters at St. Paul, Minn., was announced in the *Railway Age* of January 13, was born in Rock County,

Minn., on August 24, 1889, and graduated in civil and electrical engineering from the University of Minnesota in 1915. He en-



**Henry S. Loeffler**

tered railway service on April 3, 1915, as a bridge inspector on the Northern Pacific, later serving as a laboratory assistant at the University of Minnesota. In October, 1915, he returned to railway service as an assistant engineer on the Great Northern, serving in that position and as a draftsman until March, 1918, when he became an assistant engineer in war service, with the United States Emergency Fleet Corporation. He returned to railway service on April 11, 1919, as an assistant engineer on the Great Northern. Mr. Loeffler was promoted to bridge engineer on February 25, 1929, with headquarters at St. Paul, and held that position until his promotion to assistant chief engineer on January 1, 1940.

**R. L. Schmid**, principal assistant engineer of the Nashville, Chattanooga & St. Louis, has been promoted to chief engineer, with headquarters as before at Nashville, Tenn., succeeding **George F. Blackie**, who retired on January 1. Mr. Schmid was born at Louisville, Ky., on March 20, 1886, and attended the College of Engineering of Kentucky State University from 1907 to 1910. He entered railway

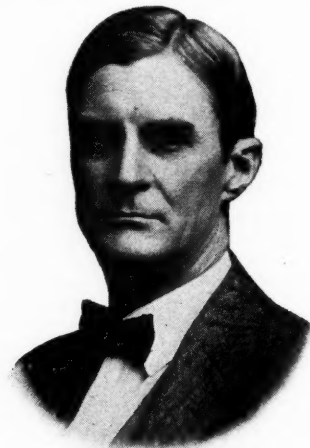


**R. L. Schmid**

service in February, 1906, as a rodman on the Louisville & Nashville. He served in the engineering department of the Penn Tunnel and Terminal Railroad in 1909, returning to the engineering department of

the L. & N. in 1910. He entered the service of the Nashville, Chattanooga & St. Louis in 1915 as a pilot on valuation work, and was promoted to resident engineer on construction in 1916. Mr. Schmid was promoted to assistant engineer, with special assignments, in 1918, and to assistant division engineer of the Chattanooga division in 1919. He was advanced to division engineer of the Atlanta division in 1920, and in January, 1926, he was promoted to assistant to the general manager, with headquarters at Nashville. In September, 1939, he was appointed principal assistant engineer, with headquarters as before at Nashville, Tenn., and held that position until his promotion to chief engineer on January 1.

Mr. Blackie was born at Nashville, on December 22, 1869, and was educated at Montgomery Bell Academy, Nashville, and at Vanderbilt University. He entered railway service on the N. C. & St. L. on November 24, 1886, and served as a rodman and chainman until 1888, when he left to enter Vanderbilt University. A year later, he returned to the service of this road as a maintenance of way clerk and draftsman in the chief engineer's office. In December, 1892, he was promoted to assistant engineer, which position he held until July, 1899, when he left railway service to become superintendent of the American Phosphate Company and served in this position and as engineer of the Mt. Pleasant Southern, Mt. Pleasant, Tenn. (charter surren-



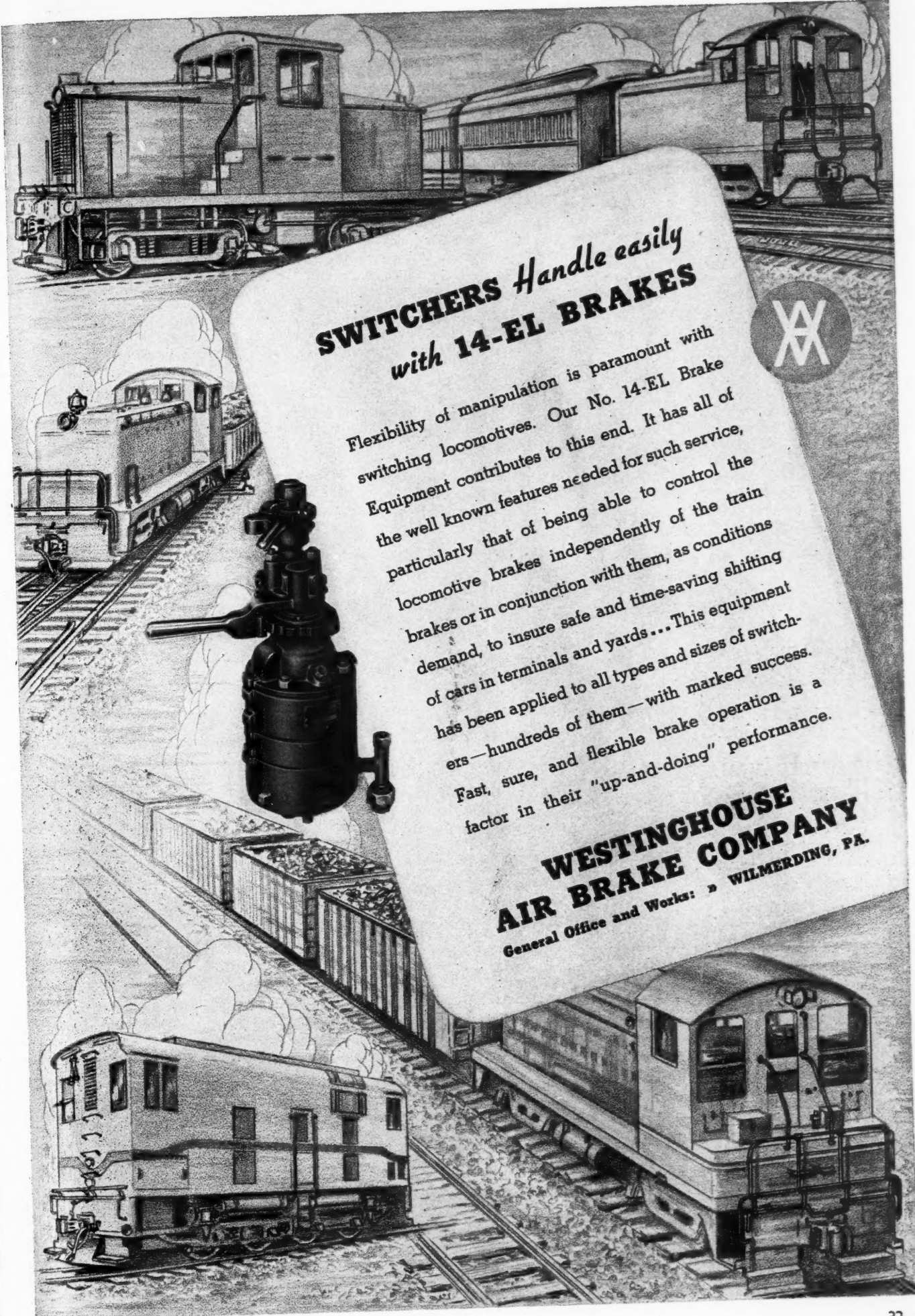
**George F. Blackie**

dered in 1934), until February, 1901. On that date he returned to the N. C. & St. L. as an assistant engineer, being promoted to engineer of roadway and track in 1914. Mr. Blackie was promoted to assistant chief engineer in December, 1916, and on November 1, 1931, he was advanced to chief engineer, the position he held until his retirement on January 1.

## MECHANICAL

**Walter E. Dunham**, superintendent of the car department of the Chicago & North Western and the Chicago, St. Paul, Minneapolis & Omaha, with headquarters at Chicago, retired on February 1. Mr. Dunham was born at Newark, N. J., on September 9, 1873, and graduated in mechanical engineering from Cornell University in 1895. He entered railway service in

Continued on next left-hand page



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1896 as a helper in the shops of the Chicago, Rock Island & Pacific at Horton, Kan., and in 1898, he was promoted to head draftsman in the motive power department at Chicago. Two years later, he was promoted to master mechanic at Dalhart, Tex., and in 1902, he went with the North Western as chief draftsman in the mechanical department at Chicago. Mr. Dunham was advanced to mechanical engineer in 1903 and in 1906 he was appointed master mechanic at Winona, Minn. In 1910, he was promoted to supervisor of motive power and machinery with the same headquarters. He was advanced to assistant to the general superintendent of the motive power and car department, with headquarters at Chicago in 1917, and from 1920 to 1921, he served as a member of the railroad board of adjustment No. 2, returning to his former position in the latter year. He was further promoted to superintendent of the car department in 1924, and in 1927, he was appointed also superintendent of the car department of the Chicago, St. Paul, Minneapolis & Omaha. Mr. Dunham has long been active in the work of the Association of American Railroads, Mechanical division, having served as chairman of the committees on Train Lighting and Automotive Rolling Stock. He is a past president of the Western Railway Club, a former vice-president of the Car Department Officers' Association and is at present chairman of the Transportation group, Chicago section, of the American Society of Mechanical Engineers.

**A. E. Coleman** has been appointed superintendent of the St. Clair tunnel, Canadian National, with jurisdiction over all mechanical and electrical operation, succeeding **M. J. Nottingham**, who has been assigned to other duties.

### PURCHASES AND STORES

**Mayne Hilkert**, chief clerk to the purchasing agent of the Chicago, Indianapolis & Louisville, has been promoted to assistant to the purchasing agent, a newly created position, with headquarters, as before, at Chicago.

**Jesse B. Noyes**, whose promotion to purchasing agent and general storekeeper of the Minneapolis, St. Paul & Sault Ste. Marie, the Duluth, South Shore & Atlantic and the Mineral Range, with headquarters at Minneapolis, Minn., was announced in the *Railway Age* of January 20, was born at Baraboo, Wis., on December 13, 1877, and entered railway service in December, 1899, as a clerk on the Wisconsin Central (leased by the Soo Line in May, 1910). He later became a local storekeeper, division accountant and traveling storekeeper, and in 1910 he was promoted to division storekeeper at Fond du Lac, Wis. In May, 1920, he was transferred to Minneapolis and in January, 1929, he was advanced to general storekeeper of the Soo Line, the D. S. S. & A. and the Mineral Range, with the same headquarters. Mr. Noyes was further promoted to assistant purchasing agent and general storekeeper in November, 1937, and held that position until his recent promotion, which was effective January 15.

### OBITUARY

**Rollo R. Mitchell**, freight traffic manager of the Union Pacific, with headquarters at Omaha, Neb., died on January 29.

**Lucius H. Dillie**, who retired in November, 1937, as trainmaster on the Missouri Pacific at Concordia, Kan., died recently at that point.

**Edward N. Abbey**, assistant to the general counsel of the Union Pacific, with headquarters at New York, died on January 20 of a heart ailment at his residence in the Columbia University Club, New York. Mr. Abbey was in his 58th year.

**Parker C. Newbegin**, chief engineer of the Bangor & Aroostook, with headquarters at Houlton, Me., whose death, on January 22, was reported in the *Railway Age* of January 27, was born on May 19, 1869,



Parker C. Newbegin

at Defiance, Ohio, and was educated at Bowdoin College and at the Massachusetts Institute of Technology, graduating from the latter in 1894. In the same year he entered the service of the Bangor & Aroostook as a rodman, serving in this capacity and as a draftsman and assistant engineer until 1896. From that year until 1900, he served as chief engineer and superintendent on the construction and operation of the Patten & Sherman (now part of the B. & A.). From January to July, 1901, he was engaged on location work for the Portland & Rumford Falls (part of the Maine Central) and the Maine Central. At the end of this period he returned to the B. & A. as an assistant engineer, serving in this capacity until 1907 when he was advanced to maintenance engineer. In 1928, Mr. Newbegin was further promoted to chief engineer of the road which position he continued to hold until his death.

**Frank L. Johnson**, who retired as assistant to the operating vice-president of the Chicago, Burlington & Quincy, with headquarters at Chicago, on May 1, 1932, died on January 27, in Bradenton, Fla. Mr. Johnson was born in Clarke County, Iowa, on August 11, 1861, and entered railway service in 1877 as a telegraph operator on the Burlington, later serving as cashier, traveling auditor and agent. In May, 1906, he was promoted to station inspector and

in March, 1908, he was advanced to superintendent of terminals at St. Louis, Mo. One month later, he was appointed superintendent of the Chicago Terminal division and in September, 1910, he was promoted to general superintendent, with headquarters at Burlington, Iowa. Two years later, he was transferred to Galesburg, Ill., and in August, 1918, he was transferred to St. Louis, Mo. Mr. Johnson was advanced to assistant to the operating vice-president, with headquarters at Chicago, in September, 1919, the position he held until his retirement.

**William T. Loudon**, who retired on May 1, 1939, as general manager of the Missouri & Illinois Bridge & Belt, with headquarters at Alton, Ill., died in St. Joseph's Hospital, in Alton, on January 27, of uremia. A biographical sketch of Mr. Loudon's career was published in the *Railway Age* of April 22, 1939.

**Charles J. Scudder**, consulting engineer of motive power of the Delaware, Lackawanna & Western, with headquarters at Scranton, Pa., died on January 30 at his home in that city, at the age of 66. Mr. Scudder was born at Saginaw, Mich., on September 21, 1873, and entered railway service in 1888 as a machinist apprentice on the Flint & Pere Marquette (Pere Marquette). In 1898 he became machinist on the Detroit, Grand Rapids & Western (Pere Marquette) at Ionia, Mich., and in 1906 became master mechanic on the Cincinnati, Hamilton & Dayton (Baltimore & Ohio) at Cincinnati, Ohio. Mr. Scudder was appointed general foreman, Pere Marquette, at Chicago, in 1908; superintendent shops at Saginaw, Mich., in 1909; and master mechanic there in 1910. In 1911 he became a locomotive inspector of the Interstate Commerce Commission and in 1917 was appointed supervisor of equipment, United States Railroad Administration. Mr. Scudder was appointed superintendent of shops for the Delaware,



Charles J. Scudder

Lackawanna & Western at Scranton, Pa., in 1919 and became superintendent motive power and equipment at Scranton in 1923. He served as chief of motive power from 1936 to October, 1939, when at his own request, he was appointed consulting engineer of motive power, the position he held at the time of his death.